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FOREWORD

SUBSTITUTE teachers have been the forgotten men and women of the teaching profession. Altho there is one substitute teacher for every six or seven regular teachers—a total of approximately 160,000 thruout the country—little was known about this group or its problems prior to this study.

This research makes two significant contributions to our limited knowledge of substitute teachers and substitute teaching service. The report may well be viewed as the first major bench mark in this largely unexplored field of educational endeavor.

First, it gives the profession its first accurate and detailed picture of the current status of day-to-day substitute teachers in public-school systems of various sizes. It tells us something about their personal traits and characteristics, their professional qualifications, their salaries and salary schedules. It provides information on the extent to which they share in such benefits as retirement and tenure protection which are now available to most regular teachers. It offers statistics on certain characteristics of the typical substitute teaching assignment.

Second, the study provides some tested ways in which regular school personnel can help to make the substitute teacher's work more pleasant and effective. Separate sections are devoted to how the regular teacher, who is likely to be absent, can help the substitute do a better job of teaching, how the staff of a school can make the substitute feel more at home and a part of the regular faculty team, how the administration of a school system can create better working conditions and facilitate high quality substitute teaching service.

The research was carried on both as an NEA Research Division project and as an Ed D dissertation study at George Washington University, Washington, D. C. The dissertation, a more complete and detailed version of the study, is entitled *Status and Working Relationships of Substitute Teachers in Urban School Systems* (see footnote on page 5).

WILLIAM G. CARR, *Executive Secretary,*
National Education Association.

I. Introduction

There are approximately 160,000 substitute teachers employed by public-school systems in the United States. These teachers teach anywhere from one or two days each semester to practically every day during the school year. In spite of the numbers involved in this work, there is hardly any phase of education about which we know less. For some unknown reason it has been the subject of very little research and study.

Purposes

The main purpose of this study was to discover and validate some of the ways in which substitute teachers can work effectively with regular teachers.[1] After a list of some of the suggested "best ways" of working together had been compiled from the literature, the purpose was to measure the extent to which these best ways are used in typical school systems, and, if used, the extent to which they prove helpful in actual practice.

Another important purpose of the study was to compile current facts on the general status of the substitute teaching force in public-school systems in order to provide the basis for drawing comparisons between part-time and full-time staff members. Specifically, it was deemed desirable to know how substitute teachers compare with regular teachers in terms of personal traits and characteristics, like age, marital status, and sex; in terms of professional status, like college training and experience; in terms of economic status, like salaries earned and financial needs; in terms of welfare status, like membership in retirement systems and tenure protection. The problem here was to find out in what ways, if any, substitute teachers fail to measure up to standards now recognized and generally accepted for regular teachers, and to propose ways of dealing with separate problems inherent therein.

Definitions

"Substitute teacher" in this research refers to teachers generally known as "on-call," "day-to-day," or "temporary" teachers; in other words, teachers who work only part time filling in for regular teachers when they are ill or for some other reason have to be away from work. Such teachers usually work only a day, a few days, or a few weeks at a time. The term as defined in this study does not include the few full-time substitutes now employed by some of the large school systems who work every day but move from one school to another as needed.

The term "urban-school systems" refers mainly to school systems located within cities having a total population of 2500 or more according to the 1950 U. S. Census. In addition to purely city systems, the definition includes some county unit systems. The rule is to include such systems if at least 50 percent of the population is in cities of 2500 or more, or if the unit includes a city as large as 30,000 population.

"Size of school system" refers to the total population of the school district and not to the student enrolment of the school system.

Guide Lines

The first phase of this study consisted of a thoro review of the small volume of literature available in this field. On the basis of the literature a series of guide lines or fundamental hypotheses were formulated with regard to what the status of substitute teachers should be and with regard to how substitute teachers and regular school personnel can work together more effectively.

These guide lines, tho not reported here, furnished the basis for most of the questions asked in the two survey blanks. The questions in general attempted to measure the extent to which certain recommended practices are followed, and, if followed, the extent to which they prove helpful. Thus, the purpose was to validate recommended practices as well as to find out to what extent they are followed in typical situations.

Procedure

Two questionnaires were used in this study. One was designed to obtain information from substitute teachers on their personal traits and

[1] The present Research Bulletin is based on a George Washington University Ed D dissertation written by Sam M. Lambert, assistant director, Research Division of the National Education Association. The original report is entitled *Status and Working Relationships of Substitute Teachers in Urban School Systems* (February 22, 1955. 287 p.). James Harold Fox, dean of the University's School of Education, served as faculty advisor. Copies on deposit in the University's library are available thru interlibrary loan.

characteristics, their professional status, their working relationships with regular teachers, and so on. The other was designed to go to all superintendents of urban-school systems to obtain information on working relationships between substitute teachers and the school staff as a whole and on certain policies and administrative practices affecting substitute teaching.

Obtaining lists of substitute teachers employed—Building a representative sampling of substitute teachers presented the most difficult of the procedural problems. It is estimated that there are between 86,000 and 87,000 substitute teachers employed in urban-school systems,[2] and it was obviously impractical to try to make contact with all of them. There is no nationwide listing of these employees; even the state directories of regular teachers do not carry the names of substitute teachers.

It was known, however, that most of the larger urban-school systems mimeograph each year lists of names and addresses of these teachers on a systemwide basis and distribute copies to all schools within the district. In the smaller urban systems it would not be too difficult to obtain individual typed or handwritten lists of substitute teachers employed.

Thus, the first step in the study was to write to all urban superintendents requesting a complete list of the names and addresses of all substitute teachers in their systems. This request brought in 2039 lists containing 43,348 names representing 52.8 percent of all the urban systems and 49.9 percent of the estimated total number of substitute teachers employed in urban systems. The range of response to this request was from 62.9 percent for cities of 30,000 to 99,999 population downward to 46.1 percent for cities of less than 5000 population.

Constructing a sample of 5000 substitute teachers—These 2039 lists containing 43,348 names were then used to construct a representative sample of 5000 substitute teachers. The 5000 needed in the sample was first divided among the various city-size classifications according to the proportions of all substitutes known to be employed in each. The number thus allotted to each city-size classification was further broken down into substitutes for elementary-school grades, substitutes for secondary-school grades, and substitutes working on both levels. The breakdown here followed the distribution as shown in the lists submitted by superintendents.

To illustrate the above procedure, 1945 of the 5000 were allotted to cities in the "100,000 or more" population bracket. This was in line with the fact that 38.9 percent of all substitute teachers are known to be employed in systems of this size. Then the allotment of 1945 was further broken down into 1017 for elementary-school grades, 570 for secondary-school grades, and 358 for the "both" classification. This distribution was based on the fact that the lists received from these cities showed that 52.3 percent of the substitutes reported worked in elementary-school grades, 29.3 percent worked in secondary-school grades, and 18.4 percent worked on both levels.

On the basis of the ratio of the number needed in each city-size classification, and within each city-size classification the number needed for each school division, to the corresponding total number reported in the lists submitted by superintendents, a random method of selecting the 5000 was devised. This meant selecting every sixth, eighth, or tenth name from the lists as indicated by the above ratios.

Returns from substitute teachers—As indicated in columns 3 and 4 of Table 1, 2893, or 57.9 percent, of the 5000 questionnaires were returned. This return is large enough that one can be 95 percent confident that the sampling error does not exceed plus or minus .02. It should also be noted that the percents of return by city size and school division did not vary widely; all percents were in the fifties or sixties.

The questionnaires returned were first classified according to the way they went out. In other words, if the returning questionnaire had been coded "II-E," it was counted as one representing a substitute teacher working in a school system of 30,000 to 99,999 population and in the elementary grades only, regardless of whether the substitute actually was working in such a city and on such a grade level. This original classification is shown in column 3 of Table 1. Such a classification of the returning questionnaires was necessary to judge fairly the representativeness of the sample.

Upon close examination it was found that many of the questionnaires needed to be reclassified. In some cases, most of the respondent's

[2] Estimate based on data reported in: National Education Association, Research Division. "Teacher Personnel Procedures, 1950-51: Employment Conditions in Service." *Research Bulletin* 30: 57; April 1952.

work was in a school system of 2500 to 4999 population, whereas, the name was originally taken from a list submitted by a system in the "10,000 to 29,999" population bracket. Also a teacher, tho listed as a substitute for elementary grades in the roster from which the name was taken, was not only teaching but was certified to teach both elementary and secondary grades. The number of such shifts made it desirable to reclassify respondents from what the superintendents' lists said they were doing to what they actually were doing.

Column 5 of Table 1 shows the respondents as reclassified. Column 6 indicates that there was considerable shifting from the "elementary" and "secondary" classifications to the "both" classification, indicating that many more substitutes than were shown in the superintendents' lists were working on both levels. There was also some shifting from one size of school system to another. The only important change here, however, was in the number of respondents placed in the city-size classification of 2500 to 4999 population.

Unquestionably, this reclassification of respondents presents a more reliable picture of typical practice than does the original classification. For this reason all data reported on the pages which follow are based on this reclassification.

The return was also widely and rather uniformly representative of the various geographic regions of the United States. The respondents represented every one of the 48 states and the District of Columbia. The lowest return was from states comprising the Southwest but even here 48.7 percent of the blanks were returned. The percent of return by regions varied upward to 65.3 percent for states comprising the Far West.

Outgo and return of the superintendents' questionnaire—No attempt was made to construct a sample of the 3861 urban-school systems in the United States. It was decided that

TABLE 1.—NUMBER AND PERCENT OF SUBSTITUTE TEACHERS RETURNING QUESTIONNAIRES

Population group and school division	Number of questionnaires mailed	Returns according to original classification of respondents		Number of returns as reclassified	Percent of change from column 3
		Number	Percent		
1	2	3	4	5	6
100,000 or more					
Elementary	1,017	567	55.8%	505	−10.9%
Secondary	570	320	56.1	311	− 2.8
Both	358	190	53.1	282	+48.4
Total	1,945	1,077	55.4%	1,098	+ 1.9%
30,000–99,999					
Elementary	543	290	53.4%	259	−10.7%
Secondary	305	186	61.0	170	− 8.6
Both	157	82	52.2	127	+54.9
Total	1,005	558	55.5%	556	− 0.4%
10,000–29,999					
Elementary	654	398	60.9%	331	−16.8%
Secondary	338	191	56.5	196	+ 2.6
Both	158	99	62.7	122	+23.2
Total	1,150	688	59.8%	649	− 5.7%
5,000–9,999					
Elementary	361	217	60.1%	181	−16.6%
Secondary	170	114	67.1	107	− 6.1
Both	84	49	58.3	76	+55.1
Total	615	380	61.8%	364	− 4.2%
2,500–4,999					
Elementary	175	114	65.1%	126	+10.5%
Secondary	75	52	69.3	55	+ 5.8
Both	35	24	68.6	45	+87.5
Total	285	190	66.7%	226	+18.9%
Grand total	5,000	2,893	57.9%	2,893	.....

the questionnaire would be sent to all of them. Table 2 shows the number sent out and the number returned. Unlike the return from substitute teachers, the highest percents of return in this case were from the larger cities. Of the questionnaires mailed, 2221, or 57.5 percent, were filled out and sent back. Here we have a sample size of 2221 from a known population of 3861, and can be 99 percent confident that the sampling error does not exceed plus or minus .01.

TABLE 2.—DISTRIBUTION OF QUESTIONNAIRES RETURNED BY SUPERINTENDENTS

Population group	Number sent out	Number returned	Percent of return
1	2	3	4
100,000 or more	142	104	73.2%
30,000–99,999	410	278	67.8
10,000–29,999	1,206	744	61.7
5,000– 9,999	1,221	670	54.9
2,500– 4,999	882	425	48.2
Total	3,861	2,221	57.5%

Reliability of Data

To provide a general test of reliability of data from the two sources, one question was asked in both survey blanks. This question had to do with the average daily salaries of substitute teachers.

It should be remembered that the superintendents' questionnaires received included school districts employing approximately 50 percent of *all* substitute teachers working in urban-school systems. The replies from the substitute teachers amounted to only 3.3 percent of the total employed.

As Table 3 indicates, the differences between the averages reported by the two groups were very small. For the year 1952-53 the difference between the over-all averages reported by superintendents and by substitute teachers amounted to only 16 cents; for 1953-54 the difference was only 21 cents.

Organization of the Report

Section I of this bulletin explains the purposes of the study and the research technics employed. Section II reports findings with regard to the current status of substitute teachers in the United States. Section III reports the findings on instructional coordination and working relationships. Finally, Section IV identifies major problems to be faced in improving substitute teaching service and sets forth suggestions for dealing with these problems.

TABLE 3.—AVERAGE DAILY SALARIES AS REPORTED BY SUBSTITUTE TEACHERS AND BY SUPERINTENDENTS

Population of school system	School year 1952–53				School year 1953–54			
	Average reported by substitute teachers	Average reported by superintendents	Difference based on average reported by substitute teachers	Column 4 as a percent of column 2	Average reported by substitute teachers	Average reported by superintendents	Difference based on average reported by substitute teachers	Column 8 as a percent of column 6
1	2	3	4	5	6	7	8	9
100,000 or more	$11.86	$11.93	+$0.07	+0.6%	$12.32	$12.48	+$0.16	+1.3%
30,000–99,999	11.63	11.85	+ 0.22	+1.9	12.31	12.48	+ 0.17	+1.4
10,000–29,999	11.43	11.11	− 0.32	−2.8	12.20	11.56	− 0.64	−5.2
5,000– 9,999	11.44	10.95	− 0.49	−4.3	11.89	11.28	− 0.61	−5.1
2,500– 4,999	10.58	10.65	+ 0.07	+0.7	11.44	11.04	− 0.40	−3.5
All school systems	$11.62	$11.46[a]	−$0.16	−1.4%	$12.21	$12.00[a]	−$0.21	−1.7%

[a] These are weighted averages. The superintendents' averages were weighted to compensate for the varying numbers of substitute teachers employed in various city-size classifications.

II. Current Status of the Substitute Teacher Corps

This section reports the findings from the first half of the research—that dealing with the current status of day-to-day substitute teachers in urban-school systems. On the basis of facts which follow, it is now possible to describe with reasonable accuracy the personal traits and characteristics of substitute teachers, their professional status, their salaries and other economic benefits of a fringe type, and certain physical conditions under which they work.

Personal Traits and Characteristics

Age of substitute teachers—Prior to the tabulation of results it was thought that the ages of substitute teachers would form a trimodal distribution. It was believed that there would be a concentration in the upper age brackets because of retired regular teachers entering the ranks of substitutes to supplement their pensions. A similar concentration was expected in the lower age brackets, especially in the larger school systems. This was based on the belief that young men and women just out of college do not find full-time jobs immediately and substitute temporarily until they do. A third concentration was anticipated in the middle age brackets like that usually found in any distribution of adult workers.

The results as shown in Table 4 were surprising. Only 122 of the 2843 reporting on this question (4.3 percent) were 65 or older; only 123 (also 4.3 percent) were under 25. *It is clear that neither the young inexperienced teachers nor the older teachers retired from regular service dominate the ranks of the substitute staff.*

Sex—The survey revealed very few males among substitute teachers. Actually, the women outnumbered the men almost 14 to 1. Of the 2893 substitutes who answered this question, 93.2 percent were women and only 6.8 percent were men, a distribution quite different from that of the regular teaching force where 74.9 percent are women and 25.1 percent are men.[1]

In the secondary-school grades only 15.4 percent of the substitutes are men. The proportion of men in the regular secondary-school teaching force is almost three times as large—45.9 percent. Men account for only 1.6 percent of the elementary-school substitute staff as compared with 14.3 percent of the regular elementary-school staff.

The smaller the school system, the fewer the men in substitute teaching positions. In school systems of 100,000 or more population, men constituted 9.8 percent of the substitute force; in school systems 30,000 to 99,999 in population, 6.1 percent; in school systems 10,000 to 29,999 in population, 5.6 percent; in school systems 5000 to 9999 in population, 3.8 percent; and in school systems 2500 to 4999 in population, only 2.2 percent.

Marital status—It is apparent from Table 5 that substitute teaching is a field of work that in the main is dominated by married women. From all appearances only those who can rely on some other source for the major share of the cost of living can afford to do this work. (See Section II for information on salaries earned by substitute teachers.)

Taking men and women together, only 6.7 percent of the substitute teachers indicated they were single. A study of full-time teachers in rural areas conducted in 1951-52 indicated that of this group of regular teachers 25.7 percent were single.[2]

TABLE 4.—AGE OF SUBSTITUTE TEACHERS, 1953-54

Age groups	Percent of substitutes reporting
1	2
Below 25	4.3%
25–29	10.3
30–34	10.2
35–39	12.8
40–44	17.2
45–49	17.5
50–54	12.0
55–59	8.0
60–64	3.4
65–69	2.8
70–74	1.3
75 and over	0.2
Median age, elementary-school substitutes	44.7 years
Median age, secondary-school substitutes	41.4
Median age, all substitutes	43.6
Number reporting	2,843

[1] National Education Association, Research Division. *Advance Estimates of Public Elementary and Secondary Schools for the School Year 1953-54.* Washington, D. C.: the Association, November 1953. p. 13.

[2] National Education Association, Research Division. "Rural Teachers in 1951-52." *Research Bulletin* 31: 54; February 1953.

Another recent study which included both urban and rural teachers indicated that single women outnumber married women (including widows) in the regular teaching force by a ratio of only 41 to 40.[3] The ratio of single women to married (including widowed) women in the substitute force is 1 to 16.

TABLE 5.—MARITAL STATUS OF SUBSTITUTE TEACHERS, 1953-54

Marital status and sex	Percent of substitutes reporting
1	2
Male	
Single	1.4%
Married	5.0
Divorced	0.2
Widowed	0.2
Total	6.8%
Female	
Single	5.3%
Married	80.6
Divorced	2.0
Widowed	5.2
Not indicated	0.1
Total	93.2%
Male and Female	
Single	6.7%
Married	85.6
Divorced	2.2
Widowed	5.4
Not indicated	0.1
Total	100.0%
Number reporting	2,893

Children of substitute teachers—The respondents were asked to list the number of children they had—their own children, adopted children, and other children who were entirely in their care—by age groups. The purpose was to gain a better understanding of the type of person who goes into substitute teaching and to learn something about his or her out-of-school responsibilities and interests.

The 2879 substitutes who answered this question indicated they had a total of 4493 children, an average of 1.6 per teacher. Over three-fourths of them said they had at least one child; over one-fifth said they had three or more children.

As is indicated in Table 6, the majority of the children of substitute teachers were of school age; however, a surprisingly large proportion were under six years of age—17.0 percent. The children of elementary-school age, six thru 12 years, constituted a very large group—35.5 percent of all the children.

It is also worth noting that almost one-fifth of the substitute teachers had at least one child under six; that 56.8 percent had at least one child under six or one between six and 12.

The evidence is clear that a significant number of substitute teachers have important responsibilities at home—responsibilities that occasionally would limit the amount of time they are able to teach.

Altho the typical substitute teacher is likely to have one or two children of her own, these children as a rule are not financially dependent upon the substitute. Of the 2888 substitutes who reported the number of persons (other than themselves) who were either partially or entirely dependent upon them for support, 2125—almost three-fourths—said "none." A little less than one-fifth of the group said they had the equivalent of at least one person fully dependent upon them. Only 7.0 percent reported as many as two full dependents.

Other personal factors—In addition to providing information on age, sex, marital status, and dependents, all respondents were asked to classify themselves according to other characteristics which would explain at least partially how they found their way into substitute teaching, why they were doing this type of work, whether the income they earned from sub-

TABLE 6.—CHILDREN OF SUBSTITUTE TEACHERS, 1953-54

Classification	Number	Percent
1	2	3
Substitutes having various numbers of children		
No children	712	24.7%
1 child	668	23.2
2 children	914	31.7
3 children	408	14.2
4 children	135	4.7
5 children	28	1.0
6 or more children	14	0.5
Total	2,879	100.0%
Number of substitutes reporting one or more children in various age groups		
Under 6 years	565	19.6%
6 thru 12 years	1,072	37.2
13 thru 17 years	687	23.9
18 or over	732	25.4
Total	2,167	75.3%
Total number of children reported in each age group		
Under 6 years	763	17.0%
6 thru 12 years	1,595	35.5
13 thru 17	858	19.1
18 years or over	1,277	28.4
Total	4,493	100.0%

[3] National Education Association, Research Division. "Teaching Load in 1950." *Research Bulletin* 29: 9; February 1951.

stitute teaching was vitally important to their welfare, and whether they preferred this work to regular teaching. The "types" of substitute teachers as revealed by the answers to seven questions are shown in Table 7.

The percents of the first "type" shown in Table 7 further validate the findings on the ages of substitute teachers as reported earlier. *The evidence is conclusive that former regular teachers living on retirement benefits do not dominate the substitute teaching forces.*

One in 10 substitute teachers is a young teacher recently out of college and doing substitute work only until he or she can find a suitable full-time teaching position. The great majority of this group, however, live in the large cities where there is less demand for full-time teachers. Out of 286 teachers classifying themselves as this type, only 27 lived in cities of fewer than 10,000 people. At a glance it would appear that this group would offer a potential source of supply of regular teachers for the small school systems since all are obviously candidates for full-time positions. However, it should be pointed out that nearly all of these teachers are married women who in all likelihood would be unwilling, perhaps unable, to leave the larger city where they reside with their husbands and children.

According to items 3 and 5 of Table 7 *a large proportion of the substitute teachers do this work because they want to and not necessarily because they have to.* Of the 2664 reporting the third item, 1128 indicated that "an outlet for their interests" and "something to occupy their surplus time" were more important considerations than the income they received from this work. Also, 8 in 10 of the married women reporting indicated that their husbands' incomes were sufficient for the maintenance of a reasonably satisfactory standard of living without their working. Finally, item 7 indicates that *two-thirds of the total group really prefer substitute teaching to full-time teaching.*

Item 6, however, indicates that many people go into substitute teaching during temporary periods of financial stress. Working temporarily to help pay off a large hospital bill or to help with the expenses of a son or daughter in college are typical examples. Over one-half the married women indicated that temporary difficulty was a factor in their return to teaching.

Item 4 provides the real key to the classification of most substitute teachers. *The typical substitute teacher at one time taught full time but quit her regular job at marriage or a few years thereafter. She raised one or two children to school age and then realized she had time to go back to work on a part-time basis.* Quite naturally, she chose for her part-time work the field she knew best—teaching.

Professional Status

College training—Four years of college work and a bachelor's degree are now generally recognized as the minimum preparation for teaching in the public schools, and many of the large school systems now require a fifth

TABLE 7.—PERCENT OF SUBSTITUTE TEACHERS BY TYPE AND BY SIZE OF SCHOOL SYSTEM, 1953-54

Type	Population of school system					All school systems
	100,000 and over	30,000–99,999	10,000–29,999	5,000–9,999	2,500–4,999	
1	2	3	4	5	6	7
1. Former full-time teacher now retired and not eligible for full-time teaching	4.4%	2.5%	3.1%	3.1%	4.5%	3.6%
2. Person recently out of college and substituting only until he can locate a satisfactory full-time position	17.8	7.4	4.1	4.1	5.4	10.0
3. Person not needing the income but needing outlet for his interests and something to occupy time	36.1	47.1	47.4	44.9	42.4	42.3
4. Person who once taught full time but stopped when she was married and whose family responsibilities are such that she can now work part time[a]	66.1	81.6	78.7	83.2	83.8	76.0
5. Husband's income sufficient to maintain a satisfactory standard of living for the family without the wife doing substitute teaching[a]	70.7	82.3	85.6	85.2	84.5	79.7
6. Temporary financial difficulties make it necessary (or at least desirable) that the family income be supplemented[a]	58.5	48.6	46.4	46.4	42.5	50.7
7. Prefer substitute teaching to full-time teaching	54.3	70.7	72.5	75.6	77.9	66.0

[a] The percents are based only on the number of married women among the respondents.

year and a master's degree for secondary-school positions.

Rural school systems have been slow in meeting such standards; however, as far back as the school year 1949-50, 82.0 percent of the full-time teachers in *urban*-school systems had at least four years of college training and 35.0 percent had five or more years.[4]

The substitute staff in urban systems, as indicated in Table 8, falls well below this level. Four years after the data on regular teachers were compiled, only 64.6 percent of the substitutes had four or more years of training and only 17.0 percent had five or more years.

The differences are even more pronounced when elementary- and secondary-school teachers are compared separately. In 1949-50, 72.0 percent of the regular elementary-school teachers had at least four years of training and 59.0 percent of the regular secondary-school teachers had at least five years. The corresponding percents for substitute teachers as of 1953-54 were 38.8 and 31.3.

Table 8 also indicates quite clearly that the larger the school system the more likely it is that the substitutes meet recommended training standards. In school districts 100,000 and over in population, 70.4 percent of the substitutes had at least four years of college training; in districts of 2500 to 4999 population, only 53.6 percent had this much training. At the five-year training level, the difference is even more pronounced—in districts 100,000 and over in population, 19.5 percent; in districts 2500 to 4999 in population, 6.7 percent.

Recency of college training—The amount of college training as described in Table 8 is only part of the evidence available on the educational qualifications of substitute teachers. Another important part of the picture is the question of how recently the college training was acquired.

Comparable data on full-time teachers in urban-school systems is not available; however, it is well known that state laws require most teachers to renew their licenses every few years. Six hours of college work every five years is fairly typical practice thruout the country. One of the reasons for requiring teachers to return to college periodically is to keep them abreast of modern trends and developments in education. This reason for returning to school is as valid for substitute teachers as for full-time teachers.

Table 9 presents detailed data on how recently substitute teachers have been to school. All respondents were asked to give the year of their most recent college course, and 2703 of those who had been to college complied. Here we find some of the most significant data reported in this study.

The typical substitute teacher has not taken a college course for 12 to 13 years—actually, nearer 13 than 12. Substitute teachers in school systems of 5000 to 9999 population have not been to school for 16.4 years (median). Over one-fourth (28.2 percent) of the total group have not had a college course for over 20 years. It has been 30 or more years since 9.5 percent of the total group have had a college course.

[4] *Ibid.*

TABLE 8.—AMOUNT OF EDUCATION OF SUBSTITUTE TEACHERS, 1953-54

Years of college education	Percent of substitute teachers at various training levels by population of school system					
	100,000 and over	30,000–99,999	10,000–29,999	5,000–9,999	2,500–4,999	All school systems
1	2	3	4	5	6	7
6 or more years	6.8%	6.3%	5.4%	3.6%	1.8%	5.6%
5 but less than 6	12.7	14.8	11.3	6.6	4.9	11.4
4 but less than 5	50.9	46.2	44.5	45.3	46.9	47.6
Total with at least 4	70.4%	67.3%	61.2%	55.5%	53.6%	64.6%
3 but less than 4	10.6%	10.7%	12.9%	12.3%	15.7%	11.7%
2 but less than 3	14.8	17.6	22.1	25.8	23.6	19.1
1 but less than 2	1.4	2.9	2.6	4.4	3.6	2.5
Less than 1 year	2.8	1.5	1.2	2.0	3.5	2.1
Total with less than 4	29.6%	32.7%	38.8%	44.5%	46.4%	35.4%
Number reporting	1,090	554	645	364	224	2,877

It can also be seen in Table 9 that substitute teachers in the very large school systems have been to school much more recently than substitute teachers in the smaller systems. In fact, the median number of years since the substitute teachers in systems of 100,000 and more population took the last college course was less than one-half that of teachers in systems of 5000 to 9999 population. Thus, substitute teachers in the larger districts not only have more training, their training is of a more recent date.

One other finding in this set of data is worth mentioning. The median number of years since the last college course of substitute teachers in elementary-school grades was 14.0; of substitute teachers in secondary-school grades, considerably less—10.7 years. *Again, those with the least training have also been to college less recently.*

Teaching not authorized by licenses held—According to the substitute teachers themselves, 89.2 percent hold a valid license to teach. The study showed, however, that the

TABLE 9.—NUMBER OF YEARS SINCE SUBSTITUTE TEACHER TOOK LAST COLLEGE COURSE, 1953-54

Number of years since last college course was taken	Percent of substitute teachers by population of school system					Percent of all substitutes
	100,000 and over	30,000–99,999	10,000–29,999	5,000–9,999	2,500–4,999	
1	2	3	4	5	6	7
Fewer than 3 years	30.9%	23.9%	20.6%	14.9%	14.8%	23.9%
3 to 5 years	15.0	12.4	12.5	10.0	11.0	13.0
6 to 8 years	6.4	4.8	6.3	8.0	6.7	6.3
9 to 11 years	4.4	5.5	4.1	6.0	5.8	4.8
12 to 14 years	8.1	6.9	9.4	7.4	15.3	8.7
15 to 17 years	6.4	8.4	9.4	7.7	8.6	7.8
18 to 20 years	6.1	7.3	8.0	9.1	8.6	7.3
21 to 23 years	5.2	9.2	9.6	7.4	9.6	7.6
24 to 26 years	6.1	6.1	5.0	10.0	8.1	6.5
27 to 29 years	2.9	5.0	5.8	7.1	4.3	4.6
30 to 32 years	2.7	2.9	3.1	4.3	2.4	3.0
33 to 35 years	2.1	3.0	1.9	3.4	0.0	2.3
36 to 38 years	1.9	2.1	1.9	2.6	2.4	2.1
39 to 41 years	0.6	0.8	1.0	0.3	1.4	0.7
42 to 44 years	0.5	0.6	0.7	0.9	0.5	0.6
45 or more years	0.7	1.1	0.7	0.9	0.5	0.8
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number reporting[a]	1,005	523	616	350	209	2,703
Median number of years	7.9	13.5	14.1	16.4	14.3	12.7

[a] Includes only those with some college preparation.

TABLE 10.—EXTENT OF SUBSTITUTE TEACHING IN UNLICENSED GRADES AND FIELDS, 1953-54

Percent of teaching time in 1953–54 in unlicensed grades or subjects	Percent of those reporting			
	Elementary-school substitutes	Secondary-school substitutes	Substitutes working on both levels	All substitutes
1	2	3	4	5
0%	72.8%	31.7%	60.8%	58.5%
1–19	6.6	14.6	10.9	9.8
20–39	3.1	11.7	6.1	6.2
40–59	2.6	10.9	5.2	5.5
60–79	1.0	6.4	2.3	2.9
80–99	0.9	8.4	2.8	3.4
100	13.0	16.3	11.9	13.7
Total	100.0%	100.0%	100.0%	100.0%
Number reporting	1,333	762	612	2,707

Read table thus: During the school year 1953-54, 72.8 percent of the substitutes for elementary grades taught no grade or subject that they were not licensed to teach; 3.4 percent of all substitutes reporting taught from 80 to 99 percent of their time in grades or subjects for which they were not licensed.

amount of substitute teaching in grades and subject fields not authorized by licenses held is extensive. Including the substitute teachers who did not hold a license, 42.1 percent of the respondents taught sometime during the school year 1953-54 at least one subject or grade that they were not licensed to teach.

Table 10 provides more detailed information on the amount of substitute teaching that is done in fields and grades not authorized by certificates held. The table is based on the following question asked of substitute teachers: "Approximately what percent of your work this year (of the days you have taught) has been in grades or subjects that your certificate did not authorize you to teach?"

It should be noted that 20.0 percent of the total group said at least 60.0 percent of their substitute work had been in grades or subjects that they were not licensed to teach; 13.7 percent of the group reported that all their work had been in unauthorized grades or subjects.

Table 10 also indicates quite clearly that secondary-school substitutes spend more time in unlicensed grades and fields than elementary-school substitutes. Of the secondary-school substitutes reporting, 68.3 percent had worked outside their licensed grades and fields. The corresponding figure for elementary-school substitutes was only 27.2 percent.

Experience as full-time teachers—The great majority (82.9 percent) of the substitute teachers included in this study at one time taught on a full-time basis, and, as indicated by Table 11, the typical substitute who has held a full-time job had six years of experience in that job. Including teachers who had not held a full-time job, the median full-time experience was five years. It is interesting to compare these figures with the median experience of regular teachers in urban-school systems which in the year 1949-50 was reported as 16.0 years.[5]

Considering the data by size of school system, 23.4 percent of the substitutes in districts of 100,000 and more population have never held a full-time teaching job, whereas, this figure for substitutes in districts of 2500 to 4999 population is only 9.3 percent. The trend is clear: ***The smaller the school system, the more likely it is that the substitute teacher has at one time taught full time.*** It should also be pointed out that the smaller the city, the longer the typical substitute worked as a full-time teacher. The medians based on all substitute teachers reporting were 4.0 years in systems of 100,000 and more population and 6.0 years in systems of 2500 to 4999 population.

Also of some consequence is the fact that proportionally fewer of the substitutes in elementary grades than in secondary grades lacked full-time teaching experience. In the elementary grades only 12.8 percent had no such experience, whereas, in the secondary grades 23.1 percent—almost twice as many—had no such experience.

The respondents were also asked how long it had been since they had done any full-time teaching, the purpose being to try to evaluate in a general way the value of their full-time experience. Obviously, the more recent the experience the more valuable it would be.

The typical substitute teacher who has been a regular teacher has been away from this work 10 years. A little over one-third of the group had done some full-time teaching within the last five years; but at the other extreme almost one-fifth had not worked full time in over 20 years.

Experience as substitute teachers—Table 12 indicates that substitute teachers have considerably less substitute experience than full-time experience. The median years of experi-

TABLE 11.—EXPERIENCE AS FULL-TIME TEACHERS, 1953-54

Years of full-time experience	Percent of substitute teachers reporting
1	2
None	17.1%
1– 2 years	16.1
3– 4 years	15.3
5– 6 years	13.1
7– 8 years	9.6
9–10 years	7.0
11–12 years	4.7
13–14 years	3.5
15–19 years	4.6
20–24 years	2.6
25–29 years	1.5
30–39 years	2.0
40 years or more	1.4
Years not indicated	1.5
Total	100.0%
Number reporting	2,893
Median for those with some full-time experience[a]	6 years
Median for all substitute teachers reporting[a]	5 years

[a] Medians were calculated from actual years reported rather than from grouped data shown in this table.

[5] *Ibid.*

ence as a substitute was only 3.0 years, just one-half the median experience as a full-time teacher (of those who had taught full time). Almost one-half the group had substituted only one or two years. Less than one-tenth had substituted for more than 10 years.

The data in Table 12 indicate an extremely high rate of turnover in the substitute staff each year. If the number working their first year as substitutes can be used as a yardstick, *there is a 29.0-percent change in the total substitute staff from one year to the next.*

We can conclude from these facts that the typical substitute teacher in urban-school systems is an experienced teacher—experienced as a regular teacher and as a substitute. Offsetting the value of the full-time experience, however, is the fact that the last of it was acquired a decade ago. The value of the substitute experience is limited, too, by the fact that large numbers of substitutes have had only one or two years in this field of work. The large annual turnover rate among substitute teachers indicates a great wastage of resources in this phase of education.

TABLE 12.—EXPERIENCE AS SUBSTITUTE TEACHERS, 1953-54

Years of substitute experience[a]	Percent of substitute teachers reporting
1	2
1 year	29.0%
2 years	18.8
3 years	12.9
4 years	7.4
5 years	6.3
6 years	4.4
7 years	3.2
8 years	3.3
9 years	1.7
10 years	3.8
11–15 years	4.9
16–20 years	2.3
Over 20 years	2.0
Total	100.0%
Number reporting	2,792
Median number of years	3.0

[a] Reports were submitted in April and May 1954. Respondents were asked to count that year (1953-54) as one year of experience.

Professional associations—One way substitute teachers can keep abreast of trends and developments in education and in professional affairs is by becoming members of local, state, and national education associations, and by participating actively in the programs of these groups. Such membership automatically provides a considerable volume of professional literature in the form of monthly journals, newsletters, booklets, special reports, and other publications. Meetings at all three levels provide opportunities to meet and exchange ideas with fellow full-time teachers. By joining the organized profession, substitute teachers add to the size and resources of professional groups and thus enhance the work of building a stronger and more effective profession.

In spite of the advantages of membership in such organizations, only 8.1 percent of the substitute teachers are members of a local education association, only 7.5 percent are members of a state association, and only 3.5 percent are members of the National Education Association. These proportions are very low as compared with full-time teachers. Practically all regular teachers belong to some type of local education association, 92.5 percent belong to a state association, and 50.0 percent belong to the National Education Association.[a]

Not only are substitute teachers by and large *not* members of any organization of teachers, there is evidence that they do not participate in the activities of these organizations. To measure one obvious form of participation, the respondents were asked: "Do you attend the meetings of your local education association? Of your state association?" They were asked to check one of four possible answers: "always," "usually," "seldom," or "never." The results are shown in Table 13.

Of the 2771 substitute teachers reporting on attendance at local education association meetings, 2363, or 85.3 percent, said they "seldom" or "never" attended these meetings, and the great majority of these were in the "never" group. Of the 2756 who reported similarly on state association meetings, 74.7 percent said "never" and an additional 14.0 percent said "seldom."

On the other hand, considering separately those who are members of state and local associations, 71.1 percent said they "always" or "usually" attended the local meetings and 54.0 percent said "always" or "usually" for state meetings. Of those who are not members, only 9.5 percent said "always" or "usually" on local

[a] Computed from the official membership records of the National Education Association.

meetings and only 7.7 percent said "always" or "usually" on state meetings.

It may be concluded from the above that, altho most substitute teachers do not belong to professional associations, when they do belong they are likely to attend meetings.

Part of the responsibility for substitute teachers not enrolling in professional associations can be laid to the regular teaching staff. Respondents were asked if they had *ever* been invited to attend a local or state meeting, the idea being to try to find out whether any attempt had been made to interest substitute teachers in the activities of local and state groups. Over 80.0 percent of the respondents said they had never been invited to attend a local association meeting and 91.5 percent said the same for state association meetings. Of one thing we can be certain: *Substitute teachers are not going to join unless they feel they are wanted and needed by the regular staff.*

Effect of qualifications on amount of work assigned—The question now arises: To what extent are superior qualifications recognized in distributing available substitute work? In other words, is the substitute teacher with much training called upon more frequently than the one with little training? Is the substitute with several years of teaching experience given more work than the one with little or no experience? In some cases there appeared to be a direct relationship; in other cases, no relationship; and in still others, the relationship was of an inverse type.

One would think, for instance, that a substitute teacher with a bachelor's or master's degree would be assigned more work than a substitute without a degree; however, this is not the case. Substitute teachers without degrees worked 32.2 days (median) during 1953-54, whereas those with bachelor's degrees worked 28.5 days (median) and those with master's degrees 29.7 days (median). Substitute teachers with doctor's degrees worked less than any of the others. The median for this group was 25.0 days.

Experience—as a full-time teacher and as a substitute teacher—seems to be more closely related to the amount of work assigned than any of the other elements of qualifications. Substitute teachers with no full-time teaching experience worked 27.8 days (median) in 1953-54; those with five to eight years of full-time experience worked 31.7 days (median); and those with 20 or more years worked 33.6 days (median). Substitute teachers with one year of *substitute* experience worked 25.2

TABLE 13.—EXTENT TO WHICH SUBSTITUTE TEACHERS ATTEND MEETINGS OF PROFESSIONAL ASSOCIATIONS

Classification	Number and percent attending meetings of			
	Local education associations		State education associations	
	Number	Percent	Number	Percent
1	2	3	4	5
Members				
Always	39	16.8%	46	21.6%
Usually	126	54.3	69	32.4
Seldom	50	21.6	42	19.7
Never	17	7.3	56	26.3
Total	232	100.0%	213	100.0%
Nonmembers				
Always	40	1.6%	40	1.6%
Usually	199	7.9	155	6.1
Seldom	482	19.1	340	13.4
Never	1,806	71.4	1,994	78.9
Total	2,527	100.0%	2,529	100.0%
All substitute teachers[a]				
Always	79	2.8%	86	3.1%
Usually	329	11.9	226	8.2
Seldom	535	19.3	385	14.0
Never	1,828	66.0	2,059	74.7
Total	2,771	100.0%	2,756	100.0%

[a] Includes those who did not indicate whether they were members.

days (median); those with three years of substitute experience, 34.4 days (median); and those with 10 or more years, 36.1 days (median).

The only other factor that seemed to be related in any way to the amount of work assigned was that of membership in professional organizations. It is not possible, however, to tell whether membership in the organizations resulted in more work, or whether more work resulted in membership in the organizations. There may well be a little effect in both directions. At any rate, members of local associations worked 37.2 days (median) during the year, whereas nonmembers worked only 29.4 days (median). Members of state associations worked 40.1 days (median); nonmembers, 29.4 days (median).

The relationships pointed out in the last four paragraphs are all based on reports from substitute teachers. A somewhat different approach to the question was made in the inquiry sent to school superintendents. The superintendents were asked to identify factors that were given "substantial" consideration in selecting a substitute teacher to fill a particular assignment. The results are reported in Table 14.

Only three of the factors were selected by as many as one-half the superintendents and two of these had to do with past performance as a substitute teacher. Unquestionably, demonstrated success as a substitute teacher plays a major role in determining the amount of work assigned to substitutes.

It was pointed out earlier that substitute teachers with degrees did not get as much work as those without degrees. It would appear that total amount of training has no positive effect on the amount of work assigned. Table 14, however, indicates that a specific type of training that matches the requirements of the job to be done has considerable effect on the amount of work assigned. This means that a substitute with only three years of college work but with special training in first-grade work would be more likely to get a first-grade assignment than a substitute with bachelor's degree and no such special training.

The numbers of superintendents checking items 4 and 5 seem to validate the earlier statement that experience both as a substitute and as a regular teacher have a positive effect on the amount of work assigned.

TABLE 14.—FACTORS SUPERINTENDENTS CONSIDER IN SELECTING SUBSTITUTES TO FILL PARTICULAR ASSIGNMENTS

Factors	Superintendents indicating the factor is given "substantial" consideration	
	Number	Percent
1	2	3
1. Previous success as a substitute in the building where the assignment is to be made	1,806	81.5%
2. A specific type of training that matches the requirements of the job to be done	1,755	79.2
3. Previous success as a substitute in other buildings	1,227	55.3
4. Amount of experience as a substitute teacher	892	40.2
5. Amount of experience as a regular teacher	859	38.7
6. Amount of education of a substitute beyond the basic requirements	700	31.6
7. Proximity of the substitute to the building where needed	463	20.9
8. General availability of the substitute	240	10.8
9. The order of the substitute's turn on the list of eligibles	218	9.8
10. Economic status of the substitute, i.e., need for work	49	2.2
Number reporting	2,217	....

The figures for item 8 probably represent a gross understatement of the effect of this factor on the assignment of work to substitute teachers. All the other factors listed were included in the questionnaire, and all the respondent had to do was to check those which were given substantial consideration. "General availability of the substitute," however, was a "write in" answer, and as such should be given greater weight. It also should be pointed out that 56 of 240 superintendents who wrote in this item indicated that this was the *only factor* that was given "substantial consideration."

Economic Status

Days of work per year—All substitute teachers were asked how many days they had taught during the school year 1953-54. The answers are shown in Table 15.

Most of the questionnaires from substitute teachers were received shortly before the end of the school year 1953-54. As each was received, however, it was dated so that the amount of work for the full year could be estimated from the portion of the year covered by the report. The figures reported in Table 15 are based on such projected estimates.

The median number of days worked during 1953-54 was 29.6 for those who had worked at least once and 28.6 for all reporting. It will be noted that substitutes in the small school systems worked approximately one-half as many days as substitutes in large systems.

The typical substitute teacher in secondary-school grades worked fewer days than the typical substitute in elementary-school grades. The medians (based on those not working and those who did) were 23.9 and 29.3 respectively. It is interesting to note that substitutes qualified to work on both levels got more work than either of the other two groups. The comparable median here was 33.7 days. This indicates that the larger the number of grades the substitute is able to teach the more work she will get.

It should be noted in Table 15 that one in every five substitute teachers teaches less than 10 days during the year. Equally important is the fact that a large number of substitute teachers—13.0 percent of the group—teach the equivalent of four or more school months.

Annual and daily earnings—Table 15 used the *median* as the index of central tendency since the purpose was to show the percent distribution of substitute teachers by number of days worked. The median being the fiftieth percentile was the logical measure in this case.

Table 16 reports *averages* of days worked for both 1952-53 and 1953-54. It will be noted

TABLE 15.—DAYS WORKED BY SUBSTITUTE TEACHERS IN 1953-54

Number of days worked	Percent of substitute teachers working various numbers of days, by population of school system					
	100,000 or more	30,000-99,999	10,000-29,999	5,000-9,999	2,500-4,999	All systems
1	2	3	4	5	6	7
0 days	2.3%	2.8%	2.7%	4.1%	2.8%	2.8%
1- 9 days	15.3	14.5	19.8	27.0	31.5	19.1
10- 19 days	13.9	15.7	18.9	19.9	21.1	16.8
20- 29 days	12.9	10.9	16.2	11.7	15.5	13.3
30- 39 days	11.3	12.1	12.6	11.4	8.5	11.5
40- 59 days	13.6	19.2	14.9	15.6	11.7	15.0
60- 79 days	10.4	10.3	7.3	5.3	4.2	8.5
80- 99 days	8.6	6.5	3.4	2.9	1.9	5.7
100-119 days	5.4	4.4	2.1	0.6	1.4	3.5
120 days or more	6.3	3.6	2.1	1.5	1.4	3.8
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number reporting	958	496	586	341	213	2,594
Median days for those working some	35.9	36.2	26.1	20.9	18.1	29.6
Median days for all substitutes	34.9	35.0	25.3	19.5	17.4	28.6

TABLE 16.—AVERAGE ANNUAL AND DAILY EARNINGS OF SUBSTITUTE TEACHERS, 1952-53 AND 1953-54

Item	Population of school system					
	100,000 or more	30,000-99,999	10,000-29,999	5,000-9,999	2,500-4,999	All systems
1	2	3	4	5	6	7
Average number of days worked in:						
1952-53	62.6	47.5	36.9	32.0	28.2	46.1
1953-54	47.4	42.9	33.1	28.4	25.5	39.0
Percent of change from 1952-53	−24.3%	−9.7%	−10.3%	−11.3%	−9.6%	−15.4%
Average annual earnings from substitute teaching in:						
1952-53	$742	$552	$422	$366	$298	$536
1953-54	584	528	404	338	292	476
Percent of change from 1952-53	−21.3%	−4.3%	−4.3%	−7.7%	−2.0%	−11.2%
Average daily pay:						
1952-53	$11.86	$11.63	$11.43	$11.44	$10.58	$11.62
1953-54	12.32	12.31	12.20	11.89	11.44	12.21
Percent of change from 1952-53	+3.9%	+5.8%	+6.7%	+3.9%	+8.1%	+5.1%
Number reporting for:						
1952-53	487	271	336	218	123	1,435
1953-54	936	482	570	327	207	2,522

that the *average* of days worked in 1953-54 is considerably higher than the *median* previously reported for the same year—39.0 versus 28.6. A close examination of Table 15, however, will reveal why the average is so much larger than the median. The number of teachers in the upper brackets of "days worked" is large enough to pull upward the mass of teachers concentrated in the lower brackets.

While substitutes worked fewer days and had a smaller annual income in 1953-54 than in 1952-53, the average daily rate of pay was 5.1 percent higher in 1953-54.

Here again it is clear that substitutes in the larger systems work more frequently than substitutes in the smaller systems. Actually the average annual income is twice as large in systems of 100,000 or more population as in systems of 2500 to 4999 population, and most of this can be attributed to the difference in volume of work.

The difference in average daily pay between large and small school systems was surprisingly small. In 1952-53 the average daily pay in systems of 2500 to 4999 population was only 10.8 percent less than the average in systems of 100,000 or more population; it was only 7.1 percent less in 1953-54. The difference between the average salaries of regular teachers in these school systems is almost twice as large percentagewise.

Unlike the situation in the regular teaching force, substitutes for secondary grades earn very little more per day than substitutes for elementary grades. The averages in 1952-53 were $11.99 for secondary-school substitutes and $11.56 for elementary-school substitutes—a difference of only 43 cents per day. In 1953-54 the averages were $12.71 (secondary) and $12.13 (elementary)—a difference of only 58 cents per day. Apparently, the extra training of secondary-school substitute teachers counts for very little in daily pay rates. This point is discussed further in the next section.

To facilitate a comparison of salaries of substitute teachers with those of regular teachers, superintendents were asked to report average annual salaries of regular teachers, the number of days in school terms, and the average daily pay of substitute teachers—all for the two years, 1952-53 and 1953-54. Average daily amounts for regular teachers were obtained by dividing the average annual salary by the number of days in the term. The results of this comparison are shown in Table 17. *The substitute teacher is paid just a little over one-half as much for a day's work as the regular teacher.*

Salary plans—Nearly all regular teachers in urban-school systems are paid on the basis of salary schedules that provide increments for training and experience. The plan of paying higher salaries to the better trained and more experienced teachers has become accepted as one of the best means of building and holding a superior teaching staff.

In spite of the fact that salary schedules are almost universally regarded as desirable for regular teachers, they have not come into general use in determining substitute teachers' salaries. As Table 18 shows, the great majority of urban-school systems pay all substitutes the same per-diem rate regardless of training or experience or any other consideration. This

TABLE 17.—PAY OF SUBSTITUTE TEACHERS AS COMPARED WITH PAY OF REGULAR TEACHERS, 1952-53 AND 1953-54

Population of school system	Average daily pay of substitute teachers as a percent of average daily pay of regular teachers	
	1952–53	1953–54
1	2	3
100,000 and over	54.2%	54.0%
30,000–99,999	55.8	55.7
10,000–29,999	55.7	55.1
5,000– 9,999	58.5	57.0
2,500– 4,999	58.9	58.1
All school systems	57.0%	56.3%

TABLE 18.—PLANS USED IN DETERMINING SUBSTITUTE TEACHERS' SALARIES, 1953-54

Plan	Percent of school systems reporting
1	2
All substitutes are paid the same per-diem rate	83.4%
A per-diem rate varying only according to training	8.9
A per-diem rate varying only according to experience	1.4
A per-diem rate varying only according to school divisions or grade levels	3.4
A per-diem rate based on both training and experience	2.8
A per-diem rate based on efficiency rating	0.1
Total	100.0%
Number of school systems reporting	2,198

means that in the typical urban-school system, a substitute with two years of college training and no experience is paid the same amount for a day's work as a substitute with a master's degree and 20 years of experience.

The information presented here helps to explain why substitute teachers on the secondary-school level, who on the whole have more training, earn just a few cents more per day than substitutes on the elementary-school level.

Fewer than 3 in 100 school systems give credit for both training and experience in the payment of substitute teachers' salaries.

Salary splitting—It was known before this study was made that a few school systems followed the practice of giving the absent full-time teacher who was sick the difference between his regular day's pay and the day's pay of the substitute teacher. How widespread this practice was, however, was not known.

In some cases, practices of this type began as an attempt to provide a modest sick-leave plan for regular teachers. School systems that could not obtain the necessary funds for a really good sick-leave plan reasoned that this arrangement was better than no plan at all. Some of these plans persisted and became attached to the more fully developed sick-leave plans. In this form the sick-leave plan provides full pay for the regular teacher up to a certain number of days, then the difference between his salary and the substitute's salary for an additional number of days.

There is no question but that adequate sick leave is desirable for regular staff members. However, if it is to be at the expense of effective substitute services, the matter is open to serious question. In such instances, what the schools gain thru better working conditions for regular teachers may be lost, or more than lost, thru poorer working conditions and lower morale among substitute teachers. The practice takes the appearance of "robbing Peter to pay Paul."

Thus, the superintendents were asked whether their school systems followed any plan whereby the absent regular teacher received any part or all of the difference between the two salaries. The answers were surprising. Of 2117 superintendents answering the question, 836, or 39.5 percent, said "yes." Some of these systems still follow this plan from the beginning of a regular teacher's illness. Others do this only after a certain number of days of sick leave at full pay. At any rate, almost four in 10 systems follow the practice in one form or another.

The following actual case illustrates how the plan operates:

One large city on the West Coast pays regular teachers an average of $30.55 per day. Substitutes in this city are paid a flat rate of $15 for each day worked. Under the sick-leave plan the regular teacher is paid full salary for 10 days of illness each year, and this is accumulative to 40 days. After 40 days of illness the regular teacher gets his salary less the salary of the substitute up to a maximum of five months. During this extended period the substitute receives $15 for doing the day's work of the regular teacher who gets on the average $15.55 for staying home.

The practice of splitting one salary between the absent regular teacher and his substitute is considerably more prevalent in small school systems than in large ones. Of systems of 2500 to 4999 population, 41.7 percent engage in the practice; of systems of 100,000 or more population, 26.0 percent.

Other employment—To obtain a picture of the extent to which substitute teachers engage in other employment, respondents were asked to list the other types of work they did for pay in 1953-54. The majority of substitute teachers (72.4 percent) said they had no other employment, which in light of findings previously reported is not surprising. It should be remembered that most substitute teachers are housewives with a home and one or two children to look after.

The remaining 27.6 percent reported a total of 1153 types of work (including duplications) that they had done for pay during the year. The work mentioned most frequently is rather closely related to public-school teaching: tutoring individual students, giving private music lessons, teaching a class in dancing, and so on. Such work is easy to combine with substitute teaching since practically all of it has to be done outside school hours. The number reporting this type of "other work" indicates that many substitute teachers have well-developed special talents that should be useful in substitute teaching.

Other types of work in order of frequency of mention included general office work; selling; welfare and recreational work; sewing and needlecrafts; baby sitting; running a business (as proprietors, owners, or managers); skilled labor, including carpentering, painting, and plumbing; and work in elections.

Fringe Benefits

Teachers and other public employees, like workers in industry, are beginning to consider the so-called "fringe benefits" of employment —retirement allowances, pay for holidays, paid vacations, and so on—almost as important as the amount of salary. There is no point in debating the merits of liberal fringe benefits for full-time classroom teachers; such humane treatment of workers has become part and parcel of the American economic and social system. Also, there is no question but that fields of work not offering these benefits will lose workers to those that do. It is well known that most regular teachers now have most of the benefits, tho, admittedly, to varying degrees of adequacy. The question in this study was: To what extent do substitute teachers have them?

Retirement benefits—By 1946 all states had adopted some type of statewide pension or retirement system to cover members of the regular teaching staff. Since 1951 a few states have combined their systems with social security. One has substituted social security for its retirement system. Except for a very few older teachers who elected, at the time their state retirement systems began, not to become members, all regular teachers now participate in some plan that provides an income for old age.

The situation for substitute teachers is quite different. *Over three-fourths of the school systems indicated that substitute teachers do not have the privilege of becoming members of a retirement system.*

Substitute teachers were also asked whether they participated in some local or state teacher retirement plan. Of the 2881 answering the question, only 15.3 percent said "yes." An additional 1.2 percent indicated an affirmative answer with certain reservations: "if the assignment lasts three months," "when teaching 30 or more consecutive days," and so on.

Tenure protection—The expression "tenure protection for substitute teachers" as used in this report needs an explanation. It simply means that substitute teachers deserve the right to remain on the approved list of substitute teachers of a school district, and to continue to get assignments from time to time, so long as they meet the requirements of this position and their work is satisfactory.

A study made by the Research Division of the National Education Association covering the year 1950-51 indicated that in 84.0 percent of the urban-school systems of the United States some type of tenure protection is provided for regular teachers.[7] *The present study, on the other hand, indicates that in only 7.3 percent of the urban-school systems is similar protection provided substitute teachers.*

Contracts—A written contract executed between the board of education and the regular classroom teacher provides protection for both parties as well as for the children in school.

Since substitute teachers have to take over the duties and responsibilities of regular teachers, at least while they are teaching, one might assume that schoolboards, for their own protection, would want substitute teachers to be bound by contracts. Also, because most urban-school systems (77 percent) require regular teachers to sign contracts,[8] it would seem that a great many would require substitutes to do likewise. This, however, is not the case.

Of the 2205 school systems reported on by superintendents, only 48 (2.2 percent) required substitutes to sign written contracts. And the reports from substitute teachers verify the facts as reported by superintendents. *There is no question but that the vast majority of substitute teachers are not bound by any contractual arrangement with employing boards of education.*

Guaranteed quantity of work—When people sign up for substitute work at the beginning of the year, many would like to know how much work they can expect. Also, a prior knowledge of the amount of money they are going to earn would encourage many to do this work who otherwise would not be interested.

Professional literature usually recommends that a certain amount of work during the year be *guaranteed* to some of the best members of the day-to-day substitute staff. The idea is both administratively feasible and educationally desirable. A school system employing 600 regular teachers and having at least 12 absences each day would be entirely justified in assigning 12 of its best substitutes to full-time substitute work, or 24 to half-time work, or 36 to one-third time work.

[7] National Education Association, Research Division. "Teacher Personnel Practices, 1950-51: Appointment and Termination of Service." *Research Bulletin* 30: 22; February 1952.

[8] *Ibid.*, p. 21.

In spite of the advantages that can accrue to the school system and to the pupils from such an arrangement, only five of the 2883 substitutes (0.2 percent) said they were guaranteed a certain amount of work or salary.

Pay for legal holidays—Nearly all regular teachers receive pay during the year for certain legal holidays on which schools are not in session. Thanksgiving and Christmas, for example, are almost invariably paid holidays for full-time teachers.

One question that arose early in the planning of this study was whether or not substitutes are entitled to these benefits, especially if a substitute assignment includes such a holiday. Thus the question was asked: "Do you receive pay for holidays that fall within the period of a substitute teaching assignment?" To avoid misunderstanding, it was explained that the question referred only to holidays for which regular teachers, when teaching, are paid. An example was also given: "Thanksgiving falls on Thursday. School is out and regular teachers are paid for the day. If you teach Monday, Tuesday, Wednesday, and Friday of that week, do you get paid for Thursday?"

Only 4.1 percent of the 2882 respondents said they were paid for such days, and some of these indicated rather severe restrictions on receiving the pay: "if on an assignment of a month or more," "if working 30 or more consecutive days," "if working 21 or more consecutive days," and so on.

Only in the larger school systems are significant numbers of substitutes paid for legal holidays falling within a substitute assignment. In systems of 100,000 or more population 8.0 percent of the substitutes gave an affirmative or a qualified affirmative answer. In systems of 2500 to 4999 population, only 0.9 percent gave such answers.

Preferential consideration for full-time jobs—Table 7 indicates that 10.0 percent of the substitute teachers are persons recently out of college and substituting only until they can find full-time jobs. It also shows that 34.0 percent prefer full-time teaching to substitute teaching. These facts furnish conclusive evidence that a significant number of substitute staff members are candidates for full-time teaching positions. This leads to the question: Are substitute teachers given preferential treatment among those applying for regular jobs? If they are, this would constitute an important fringe benefit, at least to those who want full-time work.

Such a question was asked in the superintendents' questionnaire. *Of those reporting (2165), a little over 4 in 5 (80.7 percent) said "yes."*

A similar question was also asked of substitute teachers, but 65.3 percent of the 2873 who replied said they did not know. The large number of "don't know" replies raises a question about the validity and reliability of the "yes" and "no" answers given—14.4 percent and 20.3 percent respectively. Since superintendents do the employing, or at least make recommendations to the board of those to be employed, it is likely that they, rather than substitute teachers, are in the better position to know the correct answer to this question.

One very important implication of these data should be pointed out. Altho, when employing full-time teachers, superintendents usually give preferential treatment to substitute teachers, this practice may have little or no positive effect on the morale of the substitute force because the majority of the substitutes are not aware of it. It would appear that not only should there be such a policy, but also the policy should be common knowledge among substitute teachers.

Credit for substitute experience—Another type of fringe benefit that might accrue to substitute teachers is the counting of experience as a substitute in placing the substitute teacher on the salary scale as a regular teacher later on.

No one, probably not even the substitute teachers themselves, would advocate counting a year of substitute experience as the equivalent of a year of full-time experience. At the same time, three or four years of substitute experience might equal, in total time in the classroom, one year of full-time experience. If the substitute should become a member of the regular staff, it would seem only fair to evaluate the substitute experience in terms of equivalent years of full-time experience in placing him or her on the salary schedule for regular teachers.

Since practically all urban-school systems (93.5 percent of them) now have salary schedules for regular teachers that call for regular advancement according to experience, this matter becomes very important to those substitute teachers who look forward to appointment to the regular staff.

Thus, the question was asked of school superintendents: "Is some credit given for substitute teaching experience . . . in placing a person on the salary schedule as a regular teacher?" Of the 2199 who answered the question, 30.7 percent said "yes" and 69.3 percent said "no." This indicates quite clearly that substitute teaching experience in the majority of cases is worth nothing in terms of salary placement.

The Substitute Teaching Assignment

Length of the assignment—Each respondent was asked to report the length of his or her "most recent" assignment, the purpose being to find out how long the typical substitute teaching assignment lasts. Since questionnaires were filled out in April and May of 1954, the replies are indicative of typical assignments in the spring along toward the end of the school year. It should be pointed out that assignments in midwinter might be somewhat different because of the prevalence of illness at that time of year. Also, weather conditions and epidemics might make the picture a little different for some other year.

With the above reservations, it may be reported that the typical substitute teaching assignment lasts only two days (see Table 19). In fact, 40.3 percent of the "most recent assignments" reported were for one day or less and 76.7 percent were for four days or less. On the other extreme, only 12.1 percent of the assignments were as long as two weeks.

Previous substitutions for the same teacher—A substitute who has substituted for the same regular teacher on one or more previous occasions is likely to be familiar, at least to some extent, with classroom routine, with what the regular teacher expects of the children, and, possibly, with the children themselves—all of which would likely contribute to the effectiveness of the substitute in that particular assignment.

TABLE 19.—LENGTH OF SUBSTITUTE TEACHING ASSIGNMENTS

Length of most recent assignment	Percent of substitute teachers reporting
1	2
½ day	3.2%
1 day	37.1
2 days	19.7
3- 4 days	16.7
5- 9 days	11.2
10–24 days	7.6
25–49 days	2.4
50 or more days	2.1
Total	100.0%
Number reporting	2,737
Median number of days	2.0

TABLE 20.—PREVIOUS SUBSTITUTIONS FOR THE SAME TEACHER

Population of school system	Percent who had substituted for the teacher before
1	2
100,000 or more	35.8%
30,000–99,999	47.4
10,000–29,999	51.6
5,000– 9,999	54.0
2,500– 4,999	53.9
All school systems	45.3%
Number reporting	2,787

As a general measure of past experience in substituting for the same teacher, all substitutes were asked—in regard to their most recent substitute assignments—if they had ever substituted for this teacher before. The replies are shown in Table 20.

According to the data collected, the chances are a little better than 50-50 that, when a substitute is assigned to a job, she has never substituted for this particular teacher before, and thus is largely unfamiliar with what she is going to face. Also the larger the city, the less likely it is that she has substituted for this teacher.

Because of the specialized nature of secondary-school work, one would expect substitutes on this level to be assigned to work for the same teacher much more frequently than elementary-school substitutes. The difference, however, was not as large as was expected. Of the secondary-school substitutes reporting, 47.3 percent had substituted for the same teacher before; of the elementary-school substitutes, 44.0 percent.

Previous substitutions in the same school—The advantages of past experience in the same school are similar to the advantages of having substituted before for the same teacher. If the substitute has served on previous occasions in the school, she will be familiar with the building, the routine of the school, and perhaps with some of the children. Of course, the more frequently she has substituted in a particular school, the more she will know about the time-

TABLE 21.—PREVIOUS WORK IN THE SAME SCHOOL

Population of school system	Percent who had worked in the same school before
1	2
100,000 and over	78.3%
30,000–99,999	84.2
10,000–29,999	86.6
5,000– 9,999	89.0
2,500– 4,999	91.2
All school systems	83.6%

consuming routine tasks in that school and the more time she will therefore have free for working with the children.

Thus, the respondents were asked—again referring to their most recent substitute teaching assignments—if they had ever worked in this particular school before. As Table 21 indicates, the great majority said "yes." Even in the largest systems over three-fourths had worked in the school on at least one previous occasion.

At the same time, the significance of the number who had not worked in the school any time before should not be overlooked. Unless this 16.4 percent of the total group had undergone some type of orientation prior to the assignment or had previously visited and observed work in the school, they were facing a difficult task.

Substitutions for different teachers—It is obvious that a substitute who has to substitute for five or six teachers can be more effective than one who has to substitute for 40 or 50. Each teacher and each class present different problems, and the more teachers for whom the substitute has to work, the more difficult her job becomes. Thus, the question was asked: "For how many different teachers have you substituted this year?"

The few who had not had an assignment during the year (71 out of 2746) were not tabulated since the purpose was to show the variability rather than the quantity of substitute teaching.

It should also be pointed out that most of the questionnaires were filled out before the end of the school year. Therefore, the time span covered by Table 22 is less than a full year. For the great bulk of the respondents the time interval covered by reports was approximately 90 percent of the year 1953-54. We can conclude that as of the first week in May, the typical substitute had substituted for approximately nine different teachers during the year.

The median number of different teachers "substituted for" varied considerably by size of school system. For substitutes in systems of 100,000 and more population the median was 11.0, whereas for those in systems of 2500 to 4999 population the median was 5.7, approximately one-half as many.

Variety of grades and subjects—The amount of variability in the substitute teacher's work can also be measured in terms of the number of different grades and subjects the typical substitute is called upon to teach. Each new grade in the elementary school and each new subject in the secondary school presents a new challenge and additional problems to the substitute teacher.

The typical substitute holding an elementary-school certificate teaches in the course of one year 5.1 (median) different grades. Eighty-five and eight-tenths percent of these substitutes said they taught at least three different grades in 1953-54; 13.6 percent said they taught at least eight different grades.

The typical substitute holding a secondary-school certificate teaches in the course of a single year 4.2 different subjects. Of this group of substitute teachers, 27.3 percent had taught six or more different subjects during 1953-54 and 8.6 percent had taught eight or more different subjects.

TABLE 22.—NUMBER OF DIFFERENT TEACHERS FOR WHOM SUBSTITUTES SUBSTITUTED DURING THE SCHOOL YEAR 1953-54

Number of different teachers	Percent of substitutes reporting
1	2
1–4	27.0%
5–9	29.8
10–14	18.0
15–19	9.8
20–24	7.3
25–29	3.1
30–34	2.0
35–39	1.1
40 or more	1.9
Total	100.0%
Number reporting	2,675
Median number of different teachers	8.9

III. Coordination and Working Relationships

This section of the report sets forth the findings of the second half of the research—the research that dealt with working relationships between substitute teachers and various members of the regular staff.

Most of the material presented in this section is divided into three parts. One of these parts deals with how the *individual regular teacher* and the *substitute teacher* should work together and the extent to which they do or do not work together. Another part concerns those relationships that should exist between the *staff of an entire school* and the *substitute teacher*. A third part deals with relationships between the *central office staff* and the *substitute teacher*.

The divisions outlined above have been drawn somewhat arbitrarily. Some of the relationships discussed under "The Regular Teacher and the Substitute" might also fit under "The School and the Substitute," since the responsibility for initiating a certain action might rest with both the individual regular teacher and the staff of a school as a whole. Altho the organization of this section does not establish mutually exclusive categories, the present arrangement of materials seemed to be the most logical way to present the subject-matter.

Obstacles to Effective Substitute Teaching

To provide a background for a consideration of the ways in which regular staff members and substitute teachers can work together more effectively, all substitutes were asked to list *three* of what they thought were the most serious obstacles to effective substitute work. The results are shown in Table 23.

The 2892 substitute teachers responding to the question listed a total of 6862 obstacles (including duplications). Some of them, like student behavior and large classes, would undoubtedly be named as obstacles to effective regular teaching were full-time teachers asked the same question.

It can be seen that the majority of substitute teachers feel they need to know more about what the pupils should be doing while the substitute is in charge. As the lack of adequate lesson plans was mentioned almost twice as frequently as any other obstacle, it can be regarded as a problem of considerable importance.

Not only do substitute teachers want to know more about the work going on, a great many need more information on individual pupils and a better knowledge of routines and schedules of individual schools. The shortness

TABLE 23.—OBSTACLES TO EFFECTIVE SUBSTITUTE WORK ACCORDING TO SUBSTITUTE TEACHERS

Obstacle	Frequency of mention	Percent of substitute teachers naming obstacle
1	2	3
1. Lack of adequate lesson plans	1,559	53.9%
2. Shortness of advance notice	883	30.5
3. Lack of personal information about pupils—seating charts to identify them, personal characteristics, etc.	826	28.6
4. Failure to acquaint substitute with special rules, routines, and schedules in particular schools	602	20.8
5. Student behavior—disciplinary problems	564	19.4
6. Failure of regular teacher to prepare students to work or cooperate with a substitute	428	14.8
7. Too little help from central office, principals, supervisors, and those in charge of substitutes	329	11.4
8. Low pay	246	8.5
9. Teaching out of fields of training and certification	185	6.4
10. Failure to acquaint substitute with location and availability of supplies and materials; no keys to closets	182	6.3
11. Lack of guaranteed minimum amount of work	154	5.3
12. Lack of information on courses of study for various grades	123	4.3
13. Lack of contacts with regular teachers—meetings, discussion groups, etc.	117	4.0
14. Attitude of regular teachers that substitutes are merely baby sitters, policemen, etc.	116	4.0
15. Uncertainty regarding return of regular teacher	94	3.3
16. Inefficiency of regular teacher—pupils retarded, bad behavior, poor work habits	71	2.5
17. Failure to inform substitutes of their extra duties—bus, playground, and cafeteria assignments	54	1.9
18. Lack of welfare provisions—sick leave, tenure, etc.	48	1.7
19. Too wide a range of grades and subjects taught	46	1.6
20. No opportunity to observe work of regular teachers	44	1.5
21. Classes too large	38	1.3
22. Poor methods of assigning substitutes—favoritism, etc.	37	1.3
23. Too many class interruptions, i.e., announcements	25	0.9
24. All other obstacles	91	3.1
Total obstacles reported	6,862	....
Number of substitutes reporting one or more obstacles	2,892	....

of advance notice which was mentioned by 3 in 10 respondents is also a major problem and, incidentally, one of the most difficult to solve to the satisfaction of substitutes.

It is interesting to note that very few attributed their troubles to the inefficient teaching of regular staff members, and even fewer said the wide range of grades and subjects they had to teach was a serious problem.

The Regular Teacher and the Substitute

How can the work of the individual regular classroom teacher who is likely to be absent, and the efforts of the individual substitute teacher who takes his place for a day, a week, or a month, be coordinated in such a way as to produce a more effective program of education for the children and youth? The next few paragraphs set forth a number of possible ways, the extent to which they are followed, and the extent to which they prove helpful when followed.

Lesson plans—If the substitute teacher is to make an important contribution to the work of the class, she will need in most cases some suggestions from the regular teacher about the work that should be done during his absence. A complete lesson plan or detailed outline of work to be done is the best means of transmitting such suggestions.

While the school staff as a whole and personnel in the central office must bear some of the responsibility for seeing that substitute teachers get help of this type, the regular teacher must shoulder the major share of the responsibility. He is the only person who is in a position to know what his pupils have been doing, are doing, and should be doing in the future.

TABLE 24.—PERCENT OF SUBSTITUTE TEACHERS REPORTING THAT REGULAR TEACHER LEFT LESSON PLAN OR OUTLINE OF WORK

Population of school system	Percent of substitute teachers reporting
1	2
100,000 or more	73.4%
30,000–99,999	82.0
10,000–29,999	84.4
5,000– 9,999	89.0
2,500– 4,999	85.3
All schools systems	80.4%
Total number reporting	2,788
Those whose last assignment was in elementary grades	81.4%
Those whose last assignment was in secondary grades	78.8

The substitute teachers, therefore, were asked whether the regular teacher left some type of definite lesson plan or outline of work to be done. The question referred to the substitute's most recent substitute teaching assignment. The answers are shown in Table 24.

Of the 2788 substitutes who answered the question, the great majority said "yes." However, in light of the fact that 53.9 percent of the respondents listed "lack of adequate lesson plans" as a serious obstacle to effective substitute work (see Table 23), one must conclude that some lesson plans are less than adequate or that the substitute encounters considerable difficulty when they are not left.

It is surprising to note that regular teachers in small school systems are more likely to leave lesson plans or outlines of work than regular teachers in large school systems. Note the percents in Table 24 for systems of 100,000 or more population and for systems of 5000 to 9999 population.

There is evidence that lesson plans are of considerable help to substitute teachers. Of those substitutes who reported a lesson plan was left, 89.1 percent said it was of "considerable help" and an additional 9.9 percent said it was of "some help." Of those who reported a lesson plan was *not left,* 80.7 percent thought it would have been of "considerable help" and 16.0 percent thought it would have been of "some help."

Advance notice—The second most serious obstacle to effective substitute teaching, according to the substitutes themselves, is the lack of time between the hour they are called and the time they have to report to school. Altho the rules of some boards of education require regular teachers to give a certain amount of advance notice when they expect to be absent, such rules are difficult to enforce. The regular teacher in many cases does not know he is going to be sick until he gets up in the morning. By that time a reasonable amount of advance notice is already impossible. While there is no completely adequate solution to the problem, an awareness on the part of regular teachers of the difficulties raised for substitutes might lead them to try to predict their absences earlier.

To obtain information on the problem, all substitute teachers were asked, in reference to

TABLE 25.—AMOUNT OF ADVANCE NOTICE GIVEN SUBSTITUTE TEACHERS

When notice was given	Percent of substitute teachers reporting
1	2
Before 6 p.m. the day before	28.8%
After 6 p.m. the day before	11.7
Before 7:30 a.m. the same day	29.6
After 7:30 a.m. the same day	29.9
Total	100.0%
Number reporting	2,784

their most recent assignments, how much notice they received prior to the time they were expected to report for work.

Of the substitutes who reported, almost 6 in 10 were not called until the day they were to teach. Almost 3 in 10 were not called until after 7:30 a.m. of the day they were to teach. Of course, those who were called the day before, about 4 in 10, had some time to do some advance planning for the day's work; those who were not had little or no time for such planning.

All substitute teachers who were not notified until the day they were to teach were asked a second question: ". . . how much time did you have between the time you were called and the time school started?" For those reporting, the amount of time given represents the gross amount available for preparing and eating breakfast, getting dressed for school, getting to the school building, getting last-minute instructions for the day's work, and getting to the classroom. In the typical case (of those called the morning of the assignment) this gross amount of time was one hour and seven minutes. One in every 10 of those called the morning of the assignments either had less than 30 minutes to get to school or were not notified until after school had started.

Information about individual pupils and groups—The regular teacher should leave such personal information about individual pupils and classes as the substitute will need in order to adequately care for individual and group needs. The regular teacher should leave such information as is of vital importance to the welfare of individual pupils, e.g., "Joe is deaf." "Mary's mother died last week." In the elementary-school grades, especially, he should leave information on how children are grouped for instructional purposes. Also, seating charts, when used by regular teachers, should be left to help the substitute get to know the pupils more quickly. To measure the extent of such help provided by regular teachers, substitute teachers were asked three questions.

The first was: "Did the regular teacher leave any personal information about the pupils that the substitute teacher should know? (Examples: Susie is a diabetic. Tommy has just returned after a long illness.)" Such information is essential if the substitute is to handle individual children with wisdom and understanding. Also, in a typical class of 30 pupils in the elementary school (or among the 100 to 150

TABLE 26.—AMOUNT OF NOTICE GIVEN SUBSTITUTES WHO WERE CALLED THE DAY THEY WERE TO REPORT FOR WORK

Amount of time between call and the time school started	Percent of substitutes reporting
1	2
2 hours or more	5.4%
1½ hours but less than 2	17.9
1 hour but less than 1½	40.2
½ hour but less than 1	26.3
Less than ½ hour	5.8
Notified after school started	4.4
Total	100.0%
Median amount of time	1 hr. 7 min.
Number reporting	1,627

Read table thus: Of those who were notified on the day they were to report for work, 5.4 percent were called at least 2 hours before school started; 17.9 percent were called at least 1½ but less than 2 hours before school started.

TABLE 27.—PERCENT OF SUBSTITUTE TEACHERS WHO REPORTED THAT THE REGULAR TEACHER LEFT SOME PERSONAL INFORMATION ABOUT PUPILS

Population of school system	Percent of substitute teachers reporting
1	2
100,000 or more	15.9%
30,000–99,999	14.2
10,000–29,999	17.9
5,000– 9,999	15.1
2,500– 4,999	18.5
All school systems	16.1%
Total number reporting	2,774
Those whose last assignment was in elementary grades	20.4%
Those whose last assignment was in secondary grades	9.0

students of a regular teacher in secondary school), there is almost certain to be at least *one* such important bit of information that might well be reported to the substitute.

Only 1 in 6 substitutes reported that regular teachers left any such information (see Table 27). In spite of the larger numbers of pupils they teach and thus the greater likelihood that some such information should have been made known, less than one-half as many who substituted for secondary-school teachers as who substituted for elementary-school teachers reported that the regular teacher left some personal information about pupils.

Of those who reported that some information of this type was left, 77.6 percent said it was of "considerable help" and 18.6 percent said it was of "some help." And, of those who said no such information was left, a total of 83.4 percent said they thought such information would have been of "considerable help" or "some help."

The second question had to do with information needed for effective teaching: "Did he leave any information on how pupils were grouped for instructional purposes?" Only those respondents whose last assignment was in elementary-school grades were asked to answer the question. Secondary-school substitutes were eliminated because in certain high-school fields grouping is not universally followed or recommended. As is shown in Table 28, less than one-half the substitutes said the regular teacher left information on groupings for instruction.

There is no question but that information on groupings is helpful to substitute teachers in elementary-school grades. Of those who reported that such information was left, only 1.6 percent said it was of "little or no help," whereas 87.9 percent said it was of "considerable help" and 10.5 percent said it was of "some help." Most of those who *did not* have this type of help thought they could have used it advantageously: 57.9 percent of this group said it would have been of "considerable help" and 29.0 percent said it would have been of "some help."

TABLE 28.—PERCENT OF SUBSTITUTE TEACHERS WHO REPORTED THAT REGULAR TEACHER LEFT INFORMATION ON GROUPINGS FOR INSTRUCTION

Population of school system	Percent of substitute teachers reporting[a]
1	2
100,000 or more	45.9%
30,000–99,999	46.8
10,000–29,999	45.9
5,000– 9,999	40.0
2,500– 4,999	50.4
All school systems	45.7%
Number reporting	1,657[a]

[a] The data in this table are confined to those whose last assignments were in elementary-school grades.

TABLE 29.—PERCENT OF SUBSTITUTE TEACHERS REPORTING THAT THE REGULAR TEACHER LEFT A SEATING CHART

Population of school system	Percent of substitute teachers reporting
1	2
100,000 or more	47.5%
30,000–99,999	54.9
10,000–29,999	41.7
5,000– 9,999	42.4
2,500– 4,999	35.9
All school systems	46.5
Number reporting	1,452[a]

[a] This table is based only on those who had not substituted for the same teacher on a previous occasion.

The third question relating to information left by the regular teacher was: "Did the regular teacher leave a seating chart?" The replies as shown in Table 29 are limited to those substitutes who had not taught for this regular teacher on a previous occasion and thus would not be likely to know the children in the class or classes.

In spite of the well-known fact that some regular teachers do not use seating charts and that some do not believe they should be used because they limit the freedom of movement of pupils, almost all the substitute teachers who had such charts found them helpful. In fact, 82.1 percent of the substitutes who reported that the regular teacher left a seating chart said it was of "considerable help" and an additional 13.8 percent said it was of "some help." Only 4.1 percent of this group said it was of "little or no help."

Of the substitutes who reported that the regular teacher did not leave a seating chart, 60.7 percent thought it would have been of "considerable help" and 22.8 percent thought it would have been of "some help."

Providing for pupil assistance—The list of obstacles to effective substitute teaching (see Table 23) indicates that substitute teachers

are handicapped by a lack of knowledge of the routines and schedules of individual schools and by not knowing where to locate supplies and materials in individual classrooms. The fourth, tenth, and seventeenth most frequently mentioned obstacles imply many difficulties of this type.

The regular teacher can help the substitute overcome such obstacles by having one or more pupils (possibly a committee) well prepared and well equipped to assist the substitute in locating materials and in carrying on routine activities.

To find out how much help of this type is given, substitute teachers were asked: "Had the regular teacher designated one or more special helpers among the pupils (possibly a committee) to help you locate assignments, materials, or equipment, and to generally help with routine matters?" The question applied to the substitute's most recent assignment. Answers to this question are shown in Table 30.

In spite of the fact that this type of help is fairly easy to provide, less than one-half the substitute teachers reported that it was provided. Substitute teachers in the elementary grades are a little more likely to find this type of assistance available than substitutes in the secondary grades.

It is obvious that substitute teachers find pupil assistants helpful in locating materials and equipment and in carrying on the routine activities of the class. Of those who reported that such assistance was provided, 78.4 percent said they found it to be of "considerable help" and 20.2 percent found it to be of "some help."

TABLE 30.—PERCENT OF SUBSTITUTE TEACHERS REPORTING THAT THE REGULAR TEACHER HAD DESIGNATED STUDENT HELPER(S)

Population of school system	Percent of substitute teachers reporting
1	2
100,000 or more	51.9%
30,000–99,999	43.7
10,000–29,999	38.0
5,000– 9,999	38.4
2,500– 4,999	41.6
All school systems	44.7%
Number reporting	2,758
Those whose last assignment was in elementary-school grades	46.4%
Those whose last assignment was in secondary-school grades	41.8

TABLE 31.—PERCENT OF SUBSTITUTE TEACHERS NOTING EVIDENCE THAT STUDENTS HAD BEEN PREPARED IN ADVANCE IN HOW TO RECEIVE AND WORK WITH A SUBSTITUTE

Population of school system	Percent reporting evidence of advance preparation
1	2
100,000 or more	51.3%
30,000–99,999	49.6
10,000–29,999	53.8
5,000– 9,999	57.3
2,500– 4,999	53.3
All school systems	52.5%
Number reporting	2,701
Those whose last assignment was in elementary-school grades	54.9%
Those whose last assignment was in secondary-school grades	48.4%

Advance preparation of students—In addition to providing special student leaders to assist the substitute, regular teachers should make sure that all their students are prepared in advance for receiving and working with a substitute teacher. That such a practice is important is clearly indicated in the list of most serious obstacles encountered by substitute teachers (see Table 23). "Student behavior, including disciplinary problems," was the fifth most frequently mentioned obstacle. "Failure of the regular teacher to prepare students to work or cooperate with the substitute" was sixth.

Thus, the substitute teachers were asked: "Was there any evidence that the students as a whole had been prepared in how to receive and work with a substitute teacher?" This question, like others mentioned in this section, referred to the substitute's most recent assignment. The results are shown in Table 31.

From the data reported it appears that regular teachers in the smaller systems are more likely to prepare their pupils for the coming of the substitute than regular teachers in the larger systems. At least this is true of systems under 30,000 as compared with systems of 30,000 or more population. Also, it seems that regular elementary-school teachers are more likely to provide this type of help than regular secondary-school teachers.

Another question bearing on the foregoing problem was asked of substitute teachers: "Generally, how do you feel about the over-

all behavior of the students you have taught this year? In your opinion, have they behaved *better, about the same,* or *worse* than they would have, had their regular teacher been there?"

Since the substitute teachers were not in position to judge the behavior of students under their regular teachers and thus had no basis for making such a comparison, the question lacks validity for the determination of how the students actually did behave. Altho the answers should be considered as opinions and not as facts, they should be viewed for their value in reflecting the morale and point of view of substitute staff members. The fact that student behavior was mentioned as a serious obstacle to effective substitute work by 1 in 5 respondents indicates that the problem is thought to be important.

Of the 2806 substitutes responding to the question, only 5.8 percent thought the students behaved better with them than with their regular teachers. Over four times as many—24.9 percent—thought they behaved worse. The great majority, on the other hand, thought they behaved about the same as they did with their regular teachers.

The proportional distribution of answers to this question varied considerably according to size of school system and school division. In systems of 100,000 or more population, 30.0 percent of the substitutes said "worse" as compared with only 18.5 percent in systems of 2500 to 4999 population. Of those substituting in secondary-school grades, 32.6 percent said "worse" as compared with 19.2 percent of those substituting in elementary-school grades.

From the evidence presented under this heading one can conclude that in typical practice almost one-half the regular teachers do not prepare their students in advance for receiving and working with a substitute teacher. It is also clear that substitute teachers would like some help of this type. A substantial minority of substitute teachers believe pupils behave worse under them than under their regular teachers. Some advance preparation of students in how to receive and work with a substitute might change the minds of many of these substitute teachers.

An expression of appreciation—Upon returning to school the regular teacher, as a matter of courtesy, might thank the substitute for her help. Even if it accomplishes little else, this gesture of courtesy will help to make the substitute feel that her work is important and that she is appreciated. It will also help the regular staff to overcome, at least partially, two of the obstacles to effective substitute work: lack of contacts with regular teachers and the attitude (as held by substitutes) that regular teachers think of them as merely baby sitters or policemen (see items 13 and 14 in Table 23).

To find out how often substitute teachers *are* thanked for their work, they were asked: "After returning did the regular teacher speak to you or write you a note thanking you for your work?" The question referred to the most recent substitute teaching assignment.

Table 32 shows that this courtesy is observed more widely in small school systems than in large ones; in elementary schools more often than in secondary schools. Altho this is one of the easiest ways for the regular staff to build stronger relationships with the substitute staff, only 3 in every 10 regular teachers in typical practice follow it.

TABLE 32.—PERCENT OF SUBSTITUTE TEACHERS REPORTING THAT REGULAR TEACHER THANKED THEM FOR THEIR WORK

Population of school system	Percent of substitute teachers
1	2
100,000 or more	26.4%
30,000–99,999	27.1
10,000–29,999	31.3
5,000– 9,999	38.7
2,500– 4,999	36.7
All school systems	30.0%
Total reporting	2,639
Those whose last assignment was in elementary grades	31.6%
Those whose last assignment was in secondary grades	27.6

Checking and correcting written work—Up to this point Section III has dealt only with the ways in which the regular teacher can help the substitute teacher. Building closer coordination and stronger working relationships between these two persons, however, is not a one-way affair. There are many things the substitute can and should do to help the regular teacher.

One of the most important of these responsibilities is that of not letting work pile up for the regular teacher during the absence. This implies that the substitute teacher process

TABLE 33.—EXTENT TO WHICH SUBSTITUTE TEACHERS PROCESSED WRITTEN WORK HANDED IN OR DONE WHILE THEY WERE IN CHARGE

Portion of homework, seatwork, etc., checked, corrected, or graded by substitute	Percent of substitute teachers by grade level of most recent assignment		All substitute teachers
	Elementary-school grades	Secondary-school grades	
1	2	3	4
All of it	58.5%	32.1%	48.6%
Not all but over half of it	21.7	14.5	19.0
Some but less than half of it	7.7	11.4	9.1
None of it	8.3	33.4	17.7
No such work handed in or done	3.8	8.6	5.6
Total	100.0%	100.0%	100.0%
Number reporting	1,726	1,031	2,757

(check, correct, or grade) the routine homework and seatwork handed in or done while she is in charge. Table 33 shows how the substitute teachers responded to a question on this point. It should be explained that all responses were to be based on the most recent assignment.

Altho a few substitute teachers reported that during their most recent assignment no such work was handed in or done while they were in charge, only a little over one-half of the remaining group said they checked, corrected, or graded *all such work*. A significant proportion of those who had some such work handed in or done while they were in charge—18.7 percent—checked, corrected, or graded *none of it*.

Worth noting is the fact that substitutes working in secondary-school grades are not as likely to process as much of the written work as substitutes working in elementary-school grades. There are at least two plausible reasons for this difference: first, there is more work of this type to be done on the secondary-school level; second, the secondary-school substitutes are not as likely to know the subject-matter well enough to do it, since a greater percent of the secondary-school substitutes than of elementary-school substitutes teach subjects for which they are not trained (Section II).

It seems reasonable to conclude that many substitutes let a considerable amount of routine work pile up for the regular teacher during his absence—a situation that does not contribute to good working relationships.

Reports on work accomplished—Some type of record of what transpired during a teacher's absence is necessary if the regular teacher, after returning, is to avoid overlapping or duplicating work already done by the substitute teacher. Also, a report from the substitute teacher is good insurance against the development of unnecessary gaps in skills and understandings of students.

Thus, the substitute teachers were asked: "At the end of this most recent substitute teaching assignment did you leave the regular teacher a report on work accomplished during his absence?" Respondents were asked to check one of the answers shown in Table 34.

Altho some type of report on work accomplished was made by the majority of substitute teachers, many of these reports were in oral form or were transmitted thru a student or students. Generally, a written report is the most reliable way to transmit information on work accomplished. Oral reports, whether made direct to the regular teacher or thru the students, leave many chances of misunderstanding and misinterpretation.

More important, however, is the fact that 18 in every 100 substitute teachers made no report of any kind. Can this be interpreted as meaning that in 18 cases out of 100 nothing happens that is worth reporting to the regular teacher? Is the failure to leave any type of report an open admission of "nothing accomplished"? Such assumptions are probably unsound since it is hardly possible that a teacher could spend even one day with 30 to 150 pupils without something of importance happening. At the same time, the lack of a report of any kind is likely to imply to the regular

TABLE 34.—PERCENT OF SUBSTITUTE TEACHERS REPORTING TO REGULAR TEACHER ON WORK ACCOMPLISHED

Responses	Percent of substitute teachers reporting
1	2
Yes, a written report	64.0%
Yes, an oral report	14.4
Yes, I reported thru a student or students	3.6
No, no report was made	18.0
Total	100.0%
Number reporting	2,736

teacher that *nothing very significant* happened during his absence.

It can be concluded that too many substitute teachers fail to inform the regular teacher of what transpired during his absence. And, too many of those who do inform him do not do it in the most effective way.

This section has pointed out some of the ways that regular and substitute teachers can help one another. It is clear that the regular teacher has to set the stage for effective substitute work, else he cannot expect an unbroken chain of fruitful learning experiences to be provided his classes thruout the school year. It should be remembered by regular and substitute teachers alike that, when they fail to work together, the children are the real losers.

The School and the Substitute

The first major part of Section III outlined ways in which the individual regular teacher and substitute teacher can work together more effectively. It also presented objective data on the extent to which they *help* or *fail to help* one another. This second part now turns to certain relationships that should exist between the staff of a school as a whole and the substitute teacher. Certain responsibilities described herein rest primarily upon the school principal; others rest equally upon all members of the school's regular staff.

Providing information about school routine—Each school should have available for substitute teachers a handbook or list of instructions explaining time schedules, meanings of signal bells, rules for fire drills, and other important routine activities. Altho the entire staff of a school might well participate in the cooperative development of such a handbook or list of instructions, the principal is primarily responsible for seeing that such aids are made available to every substitute who works in his building.

Indicative of the need for such assistance is the fact that "failure to acquaint the substitute with special rules, routines, and schedules in particular schools" was fourth among the most frequently mentioned obstacles to effective substitute work (see Table 23). It would appear that substitutes certainly *want* and *need* this type of help.

Thus, substitute teachers were asked: "Have the schools where you have worked this year provided you with a list of instructions (possibly a handbook) dealing with school routine?" All were asked to check one of the answers listed in Table 35.

TABLE 35.—EXTENT TO WHICH SCHOOLS PROVIDED SUBSTITUTE TEACHERS INSTRUCTIONS REGARDING SCHOOL ROUTINE DURING 1953-54

Responses	Percent of substitute teachers reporting
1	2
All the schools have	25.9%
Not all but over half of them have	7.8
Some but less than half of them have	11.2
None of the schools have	55.1
Total	100.0%
Number reporting	2,794

In spite of the need for such assistance, the majority of the substitute teachers had not during the year 1953-54 taught in any school that provided a list of instructions or handbook on school routine.

Schools in small school systems are less likely to provide this type of help than those in large school systems. Of the substitutes working in systems of 2500 to 4999 population, 63.9 percent said "none of the schools" they had worked in provided this help; of those working in systems of 100,000 or more population, only 44.8 percent gave this answer. Also, elementary schools are less likely to provide this help than secondary schools. Of the elementary-school substitutes reporting, 59.9 percent said "none of the schools." The corresponding percent for secondary-school substitutes was 48.5. It should be explained, however, that the schools in the larger systems and the high schools have more at stake in providing such help since these schools are larger and naturally more complicated in their routines and organization.

Attitude of regular classroom teachers—The substitute teacher should be made to feel at home, that she is part of the regular faculty team, that other teachers welcome and value her presence. This responsibility rests with the entire staff of a school. All members of the regular staff, principal and classroom teachers alike, should display a warm and friendly attitude toward all substitute teachers who work in their building.

To obtain information on how substitute teachers feel about the attitudes of regular

teachers, all were asked in regard to their most recent substitute teaching assignment: "What was the attitude of most of the regular teachers toward you?" They were asked to check one of the three answers shown in Table 36.

In the typical substitute teaching situation, most substitute teachers feel that regular teachers on the whole are friendly. Hardly ever are they actually unfriendly to the visiting substitute. It is worth noting, however, that 1 in 8 substitute teachers said that most regular teachers in the building where they last taught displayed an *indifferent* attitude toward them. Thus, it is apparent that many school faculties do little or nothing to make substitutes feel welcome and at home.

The substitute teacher is more likely to encounter an indifferent attitude in large school systems than in small ones. Of the substitutes in systems of 100,000 or more population, 17.3 percent reported an indifferent attitude on the part of regular teachers; of those in systems of 2500 to 4999 population, only 7.0 percent.

Reception at school—It is recommended quite frequently in the literature that the principal or some member of the regular staff escort the substitute teacher to her room and introduce her to the members of her class. Not only is this a gesture of friendliness and welcome, it provides help to the substitute in finding her way around the building. The introduction also helps her to get off to a good start with the pupils and contributes to her status in the eyes of the class. An escort to her room and an introduction to her work is a psychologically sound way to give the visiting teacher a good send-off.

Substitute teachers, therefore, were asked whether they were accorded such treatment during their most recent assignments. The first question was: "When you arrived at school, did the principal or some other member of the staff escort you to your room?" In tabulating replies, only those whose last assignment was in a school of six or more teachers and who had never taught in this school before were counted.

Almost 2 in 5 substitute teachers were not given such treatment. And those working in the very large school systems, where the schools are large, are no more likely to be accorded such treatment than those in the smallest school systems where schools are small.

Of those who *were* escorted to their rooms, 69.7 percent thought it was of "considerable help" and 26.4 percent thought it was of "some help." This leaves only 3.9 percent who thought it was of "little or no help."

The second question regarding the reception at school was: "Did the principal or some other member of the regular staff introduce you to the students who were in your room?" The tabulations here were limited to those who had not taught previously for the same regular teacher or in the same school. This question, like others in this section, was based on the substitute's most recent assignment.

TABLE 36.—PERCENT OF SUBSTITUTE TEACHERS REPORTING VARIOUS ATTITUDES ON PART OF MOST REGULAR TEACHERS

Attitudes	Percent of substitute teachers reporting
1	2
Friendly	87.7%
Unfriendly	0.2
Indifferent	12.1
Total	100.0%
Number reporting	2,739

TABLE 37.—PERCENT OF SUBSTITUTE TEACHERS REPORTING THEY WERE ESCORTED TO THEIR ROOMS

Population of school system	Percent of substitute teachers reporting
1	2
100,000 or more	66.6%
30,000–99,999	54.7
10,000–29,999	55.9
5,000– 9,999	60.3
2,500– 4,999	67.1
All school systems	61.7%
Number reporting	1,375

TABLE 38.—PERCENT OF SUBSTITUTE TEACHERS WHO WERE INTRODUCED TO PUPILS IN ROOM

Population of school system	Percent of substitute teachers reporting
1	2
100,000 or more	37.9%
30,000–99,999	27.9
10,000–29,999	28.6
5,000– 9,999	29.7
2,500– 4,999	31.8
All school systems	33.0%
Number reporting	1,447

As Table 38 shows, only one-third of the substitute teachers were accorded this courtesy and help. And, it should be remembered that all proportions are based on those who were facing a new group of students for the first time. All or practically all needed an introduction but 2 in 3 did not get it.

To indicate how substitute teachers feel about this matter, it should be explained that 70.6 percent of those who *were* introduced said it was of "considerable help" and an additional 24.1 percent said it was of "some help."

An introduction to other teachers—Another way to make the visiting substitute feel at home and a part of the regular team is to see that she is introduced to members of the regular staff, especially to teachers in nearby rooms. This will make the substitute feel more at ease with her fellow workers; it will make her feel more comfortable in asking for help.

Thus, substitute teachers were asked: "Did someone introduce you to one or more teachers in nearby rooms?" And as explained for previous questions, this question referred to the substitute's most recent assignment.

Only the questionnaires coming from substitute teachers whose last assignment was in a school of three or more rooms and then only those who had never worked in the school before were counted. Such limitations tended to eliminate most of the respondents who may not have needed such an introduction.

Of this restricted group of respondents, 63.4 percent said they *were* and 36.6 percent said they *were not* introduced to one or more teachers in nearby rooms. Even in the largest school systems (those of 100,000 or more population) where the chances of the substitute knowing the regular teachers on her first assignment are very remote, 35.4 percent were not introduced to one or more teachers in nearby rooms.

From all appearances, substitute teachers welcome an introduction to regular staff members. Of those who *were* introduced, 70.2 percent said this was of "considerable help" and 23.0 percent said it was of "some help."

The evidence is conclusive that many school staffs overlook their responsibility to extend this courtesy to the visiting substitute teacher. The evidence is also conclusive that such treatment is desired by the great majority of substitute teachers.

Offers of help from the regular staff—It has been recommended that some member of the regular staff be designated to serve as special helper and advisor to each substitute teacher assigned to the building.

If such a person is designated, this is likely to result in someone offering to help the substitute teacher. Thus, the substitute teachers were asked: "During this assignment (the most recent one) did any regular teacher offer to help you?" Of the 2728 substitutes responding to the question, 59.9 percent said "yes" and 40.1 percent said "no."

Regular elementary-school teachers are more likely to offer to help the substitute than regular secondary-school teachers. Of the substitutes whose last assignments were in elementary grades, 65.9 percent said "yes," whereas, of those whose last assignments were in secondary grades, only 50.0 percent said "yes."

All substitutes who did not receive an offer of help were asked whether they could have used some help from a regular teacher. A significant proportion of this group, 37.1 percent, said "yes."

It is quite obvious from these data that in too many instances no one on the regular teaching staff offers to assist the substitute. It is equally obvious that a great many substitute teachers can use such help if offered.

Using audio-visual materials and equipment—Substitute teachers should be skilled in the use of audio-visual materials and equipment, and should also know about the audio-visual services of the school system and how to use these services.

Such skill is deemed desirable for regular teachers—so why not for substitute teachers? Actually, it may be more important to substitute teachers since they so frequently have to improvise and make plans at the last minute.

Ability and experience of this type on the part of the substitute teacher makes her more effective in helping the absent regular teacher. It also increases the substitute's usefulness to the entire school staff. With a wide range of skill and ability she can easily be shifted from one staff responsibility to another. At times she could show films for one of the other regular teachers, while this teacher who knows the program better takes over part of the work of the absent teacher.

In spite of the desirability of the substitute teacher being able to use audio-visual equip-

TABLE 39.—FREQUENCY OF USE OF FILMS AND FILMSTRIPS BY SUBSTITUTE TEACHERS

Frequency of use	Percent of substitute teachers reporting
1	2
Often	16.9%
Seldom	35.1
Never	48.0
Total	100.0%
Number reporting	2,826

ment, 56.1 percent of the respondents said they had *never* operated a motion picture projector. And, out of 2863 responding to the question, only a little over one-fourth (27.1 percent) considered themselves proficient at operating projectors.

As is shown in Table 39, the typical substitute seldom, if ever, uses a film or filmstrip in her teaching. Almost one-half the respondents said they "never" used films or filmstrips in their work. Only 1 in 6 said they used them "often."

Little difference was noted between the replies of elementary-school and secondary-school substitutes. The great majority of respondents on both levels said they either "seldom" or "never" used films or filmstrips in their teaching. The proportions giving "seldom" or "never" responses were 84.0 percent of the elementary-school substitutes and 83.7 percent of the secondary-school substitutes.

The Central Office and the Substitute

This last major part of Section III deals with the third and final set of relationships—those that involve the staff of the superintendent and the substitute teacher (see Table 2 for distribution of superintendents responding). As would be expected, therefore, the material which follows relates largely to the organization and administration of substitute teaching services.

Supply of substitute teachers—Since the quality of substitute teaching service that a school system is able to provide depends in large measure upon the number of people available for this work, all superintendents were asked to evaluate their supply of substitute teachers. The results are shown in Table 40.

During the school year 1953-54, very few school systems had an oversupply of substitutes for elementary-school grades and even fewer had an oversupply for secondary-school grades. Actually, only 51 superintendents out of the 2006 reporting said they had an oversupply at the secondary-school level. Well over one-third of the superintendents reported a shortage of substitutes for elementary-school assignments, and over one-half reported a shortage for secondary-school assignments.

It would appear from Table 40 that a few more large systems than small ones have shortages for the elementary-school grades, and that *considerably more* small systems than large ones have shortages for the secondary-school

TABLE 40.—SUPPLY OF SUBSTITUTE TEACHERS, 1953-54

Adequacy of present supply	Percent of school systems by population					All school systems
	100,000 or more	30,000-99,999	10,000-29,999	5,000-9,999	2,500-4,999	
1	2	3	4	5	6	7
Substitutes for elementary-school grades						
Oversupply	4.0%	5.5%	5.6%	4.1%	4.8%	4.9%
About enough	51.5	59.3	57.5	57.4	53.7	56.6
Shortage	44.5	35.2	36.9	38.5	41.5	38.5
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number reporting	99	253	701	650	419	2,122
Substitutes for secondary-school grades						
Oversupply	6.9%	3.1%	3.4%	0.8%	2.2%	2.5%
About enough	53.5	57.9	39.2	31.4	34.3	39.1
Shortage	39.6	39.0	57.4	67.8	63.5	58.4
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number reporting	101	259	681	606	359	2,006

Read table thus: 4.0 percent of the school systems containing 100,000 or more people have an "oversupply" of substitute teachers for elementary-school grades; 63.5 percent of the school systems containing 2500 to 4999 people have a "shortage" of substitute teachers for secondary-school grades.

TABLE 41.—SECONDARY-SCHOOL FIELDS IN WHICH SUBSTITUTE TEACHERS ARE MOST SCARCE, 1953-54

Secondary-school fields	Percent of superintendents reporting scarcity
1	2
Science	42.4%
Industrial arts	35.0
Mathematics	31.0
Home economics	20.2
Foreign languages	18.1
Physical education	13.7
Commercial education	13.0
Music	9.7
Art	7.1
Agriculture	3.2
English	1.2
Library	1.0
Social studies	0.2
Number reporting	2,221

grades. Worth noting is the fact that approximately two-thirds of the systems of 2500 to 9999 population have a shortage for the secondary-school grades.

In addition to giving an over-all picture of the supply situation in elementary- and secondary-school grades, superintendents were asked to name the subject fields in secondary schools wherein substitute teachers were *most scarce*. The replies are shown in Table 41.

It appears that science, industrial arts, and mathematics are the fields in which it is *most difficult* to find substitute teachers. It is interesting to note in passing that men hold a large percent of the positions in these fields, and, as revealed in Section II, there are very few men in the ranks of substitute teachers. Apparently, there is little or no shortage of substitutes in the fields of social studies, library, and English. It should be pointed out that substitute teachers are *most scarce* and *most plentiful* in almost exactly the same fields as those in which regular teachers are *most scarce* and *most plentiful*.

Some school systems have attempted to meet their supply problem by permitting local high-school and college students to take on occasional substitute teaching assignments. How prevalent the practice was, however, was not known prior to this study.

The main purpose in reporting the data shown in Table 42 was not to test actual practice against some hypothesis as to what constitutes good practice, but rather to show for informational purposes what the prevailing practice is. Also, the extent of such practice throws additional light on the supply of substitute teachers as portrayed in Table 40.

The great majority of school systems do not use high-school students for substitute teaching assignments in secondary grades. At the same time, a significant proportion of the systems do use them for elementary-school assignments. The practice is fairly widespread in systems having a population of less than 30,000.

College students in teacher-education institutions are used by a large percent of the school systems of all sizes. Almost one-half of the school systems under 30,000 in population use them for both elementary- and secondary-school work.

The smaller the school system, the more likely it is that both high-school and college students are used as substitute teachers. This indicates that small school systems definitely have more serious shortages of *qualified* substitute teachers.

It can be concluded from Tables 40, 41, and 42 that a significant number of school systems

TABLE 42.—USE OF HIGH-SCHOOL AND COLLEGE STUDENTS AS SUBSTITUTE TEACHERS, 1953-54

Questions	Percent of superintendents answering "yes," by population of school system					
	100,000 or more	30,000–99,999	10,000–29,999	5,000–9,999	2,500–4,999	All systems
1	2	3	4	5	6	7
1. Do you permit *high-school students* to do substitute teaching						
a. In elementary-school grades?	4.4%	3.9%	11.1%	18.3%	21.7%	14.0%
b. In secondary-school grades?	4.4	3.4	5.6	8.5	7.6	6.5
2. Do you permit *college students* in teacher-training institutions to do substitute teaching						
a. In elementary-school grades?	32.6	31.8	44.3	49.4	45.0	43.8
b. In secondary-school grades?	26.4	32.6	44.2	51.0	47.7	44.4

Note: The following numbers of superintendents answered the above questions: 1-a, 1,858; 1-b, 1,769; 2-a, 1,818; 2-b, 1,737.

have considerable difficulty filling positions with qualified substitute teachers. The supply problem appears to be critical in both elementary- and secondary-school grades.

Schoolboard rules and regulations—To provide background information to be used in evaluating central office staff-substitute teacher relationships, each superintendent was asked whether his board of education had adopted a set of rules and regulations governing substitute teachers and substitute teaching. The respondents were also asked to indicate whether these rules and regulations covered such matters as salary rates and professional qualifications of substitute teachers, responsibilities of various regular staff members to the substitute teacher, and responsibilities of the substitute teacher to regular staff members and to students. Depending upon the unique characteristics of the local situation, rules and regulations should also cover various other matters; however, the items shown in Table 43 would seem to constitute the basic requirements of rules and regulations for any school system.

Out of 2221 school systems responding to the question, 633, or 28.5 percent, had *no* official rules or regulations regarding any phase of substitute teaching service. Almost 3 in 10 schoolboards had no rule regarding salaries to be paid to substitute teachers. Over one-half had no rules regarding their professional qualifications. Only 19.7 percent of the respondents said they had rules and regulations that covered all six of the categories named in Table 43—categories which constitute the minimum essentials of an effective set of rules and regulations.

The smaller the school system, the less likely that it had an official set of rules and regulations. Of the school systems of 100,000 or more population, 90.4 percent had adopted a set of rules and regulations governing some phase or phases of substitute service. The corresponding percent for systems of 2500 to 4999 population was 66.4. Also, 35.6 percent of the largest school systems, as compared with only 13.6 percent of the smallest school systems, had official rules and regulations covering all six items in Table 43.

TABLE 43.—PERCENT OF SCHOOL SYSTEMS HAVING SCHOOLBOARD RULES AND REGULATIONS COVERING SPECIFIC MATTERS, 1953-54

Rules and regulations regarding:	Percent of school systems reporting
1	2
1. Salaries of substitute teachers	71.0%
2. Professional qualifications	44.7
3. Responsibilities of school principals for substitute service	46.4
4. Responsibilities of regular teacher to substitute teacher	36.9
5. Responsibilities of substitute teacher to regular teacher	31.9
6. Responsibilities of substitute teacher to students	30.0

Materials furnished substitute teachers—It has been recommended that the administration provide for all substitute teachers: (a) a handbook or list of instructions for substitute personnel, (b) a copy of the official schoolboard rules and regulations governing substitute teaching, (c) a map of the school district showing the locations of schools, (d) courses of study or curriculum guides covering fields and school divisions in which the substitute is likely to work, (e) a statement describing the goals or philosophy of the school system, and (f) copies of newsletters and bulletins that go out to regular teachers.

Under varying local conditions certain additional materials might be helpful to substitute teachers; thus, the above list is not a comprehensive one. On the other hand, all the materials listed would provide some help to all or nearly all members of the substitute staff. An exception worth noting is a map of the school district which would not be useful to all substitutes working in small school systems.

To measure the extent to which school systems offer this type of help, all superintendents were asked whether they provided substitute teachers with the materials mentioned above. The replies are shown in Table 44.

Only one of the items was provided by a majority of the school systems reporting, and even this was provided by only a little over one-half of them. Some of the items were provided by less than one-fourth of the systems.

With one exception, the larger the school system the more likely it was that it provided the materials mentioned in Table 44. In this one case, the reverse was true. A larger percent of the small school systems than of the large ones provided substitutes with copies of newsletters and bulletins going out to regular staff members. This type of assistance could be easily provided by every school system. It simply requires adding substitute teachers to the regular mailing list.

Worth noting is the fact that only 22.0 percent of the systems provide substitute teachers with a list of schoolboard rules and regulations governing substitute teachers and substitute teaching. Actually, 71.5 percent of the systems have some type of official rules and regulations, but less than one-third of them transfer this information to the substitutes in written form.

Substitute teachers were also asked if the school system in which they had worked most frequently had provided them with a map of the school district. Of the substitute teachers working in systems of 30,000 or more population, 22.4 percent said "yes." Apparently, substitute teachers working in large school systems find such maps helpful. Of those who reported they were provided with a map, 84.2 percent said it was of "considerable help" and 11.2 percent said it was of "some help."

Another question, having to do with courses of study and curriculum guides, was asked in both blanks. It was pointed out in Table 44 that 42.5 percent of the superintendents said their systems provided such materials; however, only 18.6 percent of the substitute teachers reported receiving them. It is interesting to note that only 53.6 percent of the substitutes who reported they *were* provided courses of study or curriculum guides said they received these prior to their first teaching assignment.

Finally, substitute teachers were asked whether the superintendent of the school district in which they worked most frequently sent a newsletter or bulletin to regular teachers at various intervals. Out of 2887 responding, 44.8 percent said "yes," 7.2 percent said "no," and 48.0 percent said "don't know." Substitutes who reported that a newsletter or bulletin *was* sent to regular teachers were then asked if they (the substitutes) received them. The answers were as follows: "usually," 18.1 percent; "sometimes," 9.5 percent; "seldom," 2.7 percent; "never," 69.7 percent. It seems clear that most superintendents who send regular or irregular newsletters or bulletins to full-time staff members overlook sending them to the substitute staff members.

In spite of the fact that items in the two questionnaires are not completely comparable, it should be explained that data from both sources point in the same general direction: *In the majority of cases, materials that should be made available to substitute teachers, and which are comparatively easy to provide, are not provided.*

Meetings for orientation and for exchange of ideas—It has been recommended that each school system hold early in the school year at least one orientation meeting for the substitute teaching staff. Such a meeting for *regular staff members* has become standard practice in a great many school systems. It appears that substitute teachers have at least as much need for such meetings as regular teachers, and, in light of the rate of turnover in the substitute teach-

TABLE 44.—PERCENT OF SCHOOL SYSTEMS PROVIDING SUBSTITUTE TEACHERS WITH CERTAIN MATERIALS, 1953-54

Materials	Percent of systems providing each item, by population of system					
	100,000 or more	30,000–99,999	10,000–29,999	5,000–9,999	2,500–4,999	All systems
1	2	3	4	5	6	7
1. A list of instructions or suggestions for substitute teachers	63.7%	55.1%	54.8%	50.4%	57.1%	54.4%
Number reporting	102	263	728	659	417	2,169
2. A list of schoolboard rules and regulations governing substitute teachers and substitute teaching	37.3%	26.3%	21.9%	20.5%	18.5%	22.0%
Number reporting	102	255	723	654	417	2,151
3. A map of the school district showing locations of schools	23.5%	16.4%	[a]	[a]	[a]	18.4%[a]
Number reporting	102	256	...	...	...	358
4. Courses of study or curriculum guides covering fields in which the substitute is likely to work	48.0%	47.8%	43.6%	40.2%	39.3%	42.5%
Number reporting	102	255	724	656	417	2,154
5. Statement describing goals and/or philosophy of school system	24.5%	28.7%	24.5%	22.6%	19.7%	23.5%
Number reporting	102	254	722	656	416	2,150
6. Copies of newsletters and bulletins that go to regular teachers	29.4%	23.5%	27.6%	30.4%	35.4%	29.6%
Number reporting	102	255	725	654	415	2,151

[a] Because a map of the school district might not be useful to many substitute teachers working in small systems, the tabulations here were limited to the two largest system-size classifications. The percent for "all systems" is based on figures reported in columns 2 and 3.

ing staff (see Section II), it appears that substitute teachers may have an even greater need for such meetings.

It has also been recommended that each school system provide some opportunity (a general meeting, a workshop, or a series of building meetings) for regular and substitute teachers to exchange ideas on mutual problems. A review of the literature indicated that such meetings are extremely valuable in bringing about recognition of mutual problems and in building more effective partnerships between regular and substitute staff members.

Thus, two types of meetings involving substitute personnel are recommended. There is considerable evidence of the need for such meetings in the list of obstacles to effective substitute work (see Table 23). Thirteenth among the obstacles most frequently named by substitute teachers was "lack of contacts with regular teachers—meetings, discussion groups, etc." Need for such meetings is also inferred in obstacles 4, 6, 7, 10, 12, 14, and 17.

To determine the extent to which school systems provide such meetings, substitute teachers were asked the two questions shown in Table 45. Both questions referred to the school system in which the substitute had worked most frequently during the year 1953-54.

From Table 45 it is obvious that very few school systems outside those in the larger cities ever hold a special meeting for substitute teachers. Evidently, orientation meetings (these would be reported as "special meetings") for substitute teachers are the exception rather than the rule. Of the substitutes who reported that the school system had held a special meeting (222 out of 2831), 73.0 percent said they attended the meeting. Thus, if such a meeting is held, substitutes, more likely than not, will attend it. Of those who had attended such a special meeting, 45.9 percent found the meeting to be of "considerable help" and 36.5 percent found it to be of "some help." It appears that such meetings are considered worthwhile by the great majority of substitute teachers.

Responses from the superintendents tended to verify the information reported by substitute teachers. Only 147 of the 2203 superintendents reporting (6.7 percent) said their school systems had held such a special meeting during the year 1953-54.

It is interesting to note that only 8.0 percent of the superintendents who reported no such meeting during the year 1953-54 could recall such a meeting *ever* being held in the school district. Special meetings for substitute teachers might well be described as "unheard of" in most school systems.

It is even more obvious from Table 45 that few school systems hold meetings in which regular and substitute teachers have an opportunity to discuss mutual problems. Only 140 of the 2816 substitute teachers reporting (5.0 percent), said such a meeting had been held during the year 1953-54. Those working in systems where such a meeting had been held were also asked whether they attended the meeting, and 82.0 percent said "yes." It thus appears that the great majority of substitutes will turn out for such meetings.

Do substitute teachers consider meetings to exchange ideas with regular teachers helpful? The respondents gave a resounding "yes": 67.0 percent of those who had attended such a meeting said it was of "considerable help" and an additional 32.0 percent said it was of "some

TABLE 45.—MEETINGS INVOLVING SUBSTITUTE TEACHERS, 1953-54

Questions and answers	Percent of substitute teachers by population of school system					
	100,000 or more	30,000–99,999	10,000–29,999	5,000–9,999	2,500–4,999	All systems
1	2	3	4	5	6	7
1. To your knowledge, has the school system held a meeting any time this year especially for substitute teachers?						
Yes	13.5%	9.9%	2.8%	0.6%	1.8%	7.8%
No	86.5	90.1	97.2	99.4	98.2	92.2
Number reporting	1,064	546	640	358	223	2,831
2. To your knowledge, has the school system held a meeting any time this year in which regular and substitute teachers had an opportunity to discuss common problems?						
Yes	5.3%	3.3%	5.8%	3.4%	7.8%	5.0%
No	94.7	96.7	94.2	96.6	92.2	95.0
Number reporting	1,055	546	641	355	219	2,816

help." Only 1.0 percent said the meeting was of "little or no help."

In spite of the fact that the great majority of school systems hold neither an annual orientation meeting nor a meeting in which regular and substitute teachers can discuss mutual problems, the evidence clearly establishes the desirability of both types of meetings.

Committees on coordination—The creation of a joint committee of regular and substitute staff members to work cooperatively on instructional coordination is recommended as one of the most effective steps that can be taken toward the improvement of substitute teaching. This view is set forth repeatedly in professional literature.

The deliberations of such groups and their eventual recommendations, when disseminated widely thru the ranks of regular and substitute teachers, can result in greater understanding of one another's problems. The resulting mimeographed or printed publications could contain many logical and practical suggestions as to how supervisors, principals, regular teachers, and even students could help to make the substitute's work easier, more pleasant, and more effective. They could make pointed and valuable suggestions as to how the substitute can work more effectively with students and with regular staff members all along the line. Examples of the work of two such groups may be found in *Handbook for Substitute Teachers* (Austin, Texas, public schools) and *Orientation of Day-by-Day Substitute Teachers* (Elizabeth, New Jersey, public schools).

To find to what extent school systems have used such committees, all superintendents were asked: "Has your school system had, any time in the last five years, a committee to work on problems of coordinating substitute services with regular services?" Of the 2190 superintendents responding to the question, only 144, or 6.6 percent, had had such a committee.

TABLE 46.—COMPOSITION OF COMMITTEES ON THE COORDINATION OF REGULAR AND SUBSTITUTE SERVICES

Groups represented	Percent of superintendents mentioning each group
1	2
Elementary-school principals	81.3%
Secondary-school principals	70.5
Regular elementary-school teachers	60.7
Regular secondary-school teachers	52.7
Supervisors or directors	51.8
Elementary-school substitute teachers	29.5
Secondary-school substitute teachers	27.7
Superintendent	22.3
Assistant superintendents	2.7
Parents	1.8
Students	0.9
Laymen other than parents	0.9

Not only should school systems have such committees, the committees should be representative of the various professional groups that are affected by substitute teaching problems. It hardly seems necessary to point out that the substitute teachers themselves should be well represented both quantitatively and qualitatively. This reasoning led to asking the superintendents of school systems which had had a committee in recent years to name the various groups represented. The results are shown in Table 46.

The most obvious weakness in the pattern revealed in Table 46 is the relatively low representation of the substitute teaching force. Whereas every such group should contain at least one substitute teacher, the elementary-school substitutes were mentioned by only 29.5 percent of the superintendents; the secondary-school substitutes by only 27.7 percent.

Guided tours of the school system—Taking substitute teachers on a guided tour of the school system early in the school year—this is another practical way in which the administration of a school system can help substitute teachers. Such a recommendation is set forth repeatedly in professional articles and reports. A tour of this type will help substitute teachers to become acquainted with the facilities in the buildings where they are likely to work. It will also help them to become familiar with the various routes to be used in getting to and from their assignments. It must be remembered in this connection that the annual turnover in the substitute staff is very large. Many substitutes in the typical school system will not know the system very well at the beginning of the year.

Because such assistance is considerably more helpful to substitutes in large systems than to those in small ones, the tabulations here were limited to school systems of 30,000 or more population.

In spite of the value of such tours, especially in the larger school systems, only 2.0 percent of the superintendents of systems of 100,000 or more population and only 5.1 percent of the superintendents of systems of 30,000 to 99,999

population said they had taken substitute teachers on a guided tour during the year 1953-54. The percent for the two groups combined was 4.3. The remaining 95.7 percent of the superintendents were asked if their systems had *ever* taken substitute teachers on such a tour, and 97.4 percent of this group said "no." From all appearances, the practice has never been widespread.

Observation of regular teachers—Articles on substitute teachers and substitute teaching have recommended that school systems provide opportunities for substitute teachers to observe the work of outstanding regular teachers. Such a recommendation can be fully justified on the grounds that, if observation of superior teaching is worthwhile for regular teachers, it is no less worthwhile for substitute teachers.

Facts reported earlier in this study indicate that substitute teachers have more to gain from observations than regular teachers. It was shown in Section II that the typical substitute teacher has less education than the typical regular teacher; hence, the greater the need for inservice education. Also, the last of the training the typical substitute teacher does have was acquired 12 years ago. Even the substitute who at one time taught full time has not done any full-time teaching for almost 10 years. It seems safe to assume that many substitute teachers are out of touch with modern methods and materials. Observation of superior work is one effective way of remedying, at least partially, this apparent weakness.

The question asked substitute teachers was: "During the year (1953-54) did the school system (in which you have worked most frequently) make any arrangements for you to observe the work of regular teachers?" Of the 2844 substitutes answering the question, 8.2 percent said "yes" and 91.8 percent said "no." Those who answered "yes" were asked if they had taken advantage of the opportunity by observing at least once, and 210 out of 219 said they had.

Those who reported they had observed at least once were also asked if the observation had proved helpful to them. This group answered as follows: 85.1 percent said it was of "considerable help," 14.4 percent said it was of "some help," and only 0.5 percent said it was of "little or no help."

On the basis of these data we can conclude that the great majority of urban-school systems do not provide opportunities for substitutes to observe the work of regular teachers; however, when such an opportunity is provided, the typical substitute is very likely to take advantage of it. The evidence appears conclusive that such opportunities are helpful to substitute teachers and thus well worth the effort required to provide them.

Evaluating the work of substitute teachers—Many school systems now make some attempt to periodically evaluate the work of regular teachers. Sometimes this evaluation is a one-way process carried on by a single supervisor or principal thru one or more classroom observations. In other cases the evaluation is of a cooperative type in which the teacher helps to identify his own strengths and weaknesses. In either event, most leaders in education believe that the person being evaluated should have an opportunity to discuss the results of the evaluation with the other person involved in the process.

The rather widespread practice of evaluating the work of regular teachers formed the basis for the hypothesis that the work of substitute teachers should also be evaluated. Thus, substitute teachers were asked: "To your knowledge, has your work as a substitute teacher been rated or evaluated this year (the year 1953-54)?" Approximately 1 in 5 respondents said "yes." It should be noted that a considerably larger proportion of the group—29.0 percent—were working their first year as substitute teachers (see Section II).

Such rating or evaluation of substitute work is considerably more prevalent in the very large school systems than in the relatively small ones. The range was from 31.1 percent in school systems of 100,000 or more popula-

TABLE 47.—PERCENT OF SUBSTITUTE TEACHERS WHOSE WORK WAS RATED OR EVALUATED DURING 1953-54

Population of school system	Percent of substitute teachers reporting
1	2
100,000 or more	31.1%
30,000–99,999	17.8
10,000–29,999	12.4
5,000– 9,999	11.8
2,500– 4,999	16.0
All school systems	20.6%
Number reporting	2,655

tion, downward to 11.8 percent in systems of 5000 to 9999 population (see Table 47).

The substitute teachers who said their work had been rated or evaluated in 1953-54 were asked whether they had been shown a copy of the rating or at least been given some information about it. Of the 500 responding to this question, 23.8 percent said "yes" and 76.2 percent said "no." Individuals were also asked whether they had had a chance to discuss their rating with at least one person who rated them; 33.6 percent said "yes" and 66.4 percent said "no."

Using preferred and general lists—One highly recommended practice in administering substitute teaching services is the use of two lists—a *preferred* list consisting of the most successful and best qualified and a *general* list consisting of all others. Under such a plan substitutes on the preferred list are called before those on the general list.

In the superintendents' questionnaire the above plan was explained and respondents were asked whether their school systems followed this (or some similar) plan. Of the 2215 superintendents responding, only 635, or 28.7 percent, said "yes." The plan is most widely used in school systems of 5000 to 9999 population; 32.4 percent of these systems used the plan. In fact, it is used almost as widely in systems of 2500 to 4999 population as in systems of 100,000 or more population. The percents were 25.8 and 26.9 respectively.

Altho the majority of school systems are not using preferred and general lists of substitute teachers, the fact that a significant number are is an indication that the plan deserves study and consideration by others.

Altho the important findings set forth in this section will be summarized in Section IV, it should be pointed out here that the shortage of qualified substitutes and the lack of school-board rules and regulations on critical matters tend to limit what can be accomplished thru the administration of this service.

At the same time, central office personnel fail in too many instances to provide common-sense types of help which are reasonably easy to provide in any school system. Perhaps if substitute teachers were thought of as having many of the same needs as regular teachers, more types of help would be forthcoming. Thinking of them as regular teachers, one could not help but notice that they also need curriculum materials, information about the philosophy and goals of the school system, orientation meetings, chances to exchange ideas with full-time teachers, and opportunities to observe outstanding teaching. *From all appearances, we not only fail to think of them as regular teachers, we frequently fail to think of them at all.*

IV. Problems and Proposals

The purpose of this section is to describe briefly the most significant problems brought to light by the research and in each case to suggest one or more ways the problems can be either partly or fully solved.

The organization of Section IV parallels that of the report as a whole: First, there is a series of problems and suggestions growing out of the status phase of the study; second, a similar series of problems and suggestions growing out of the research on working relationships.

Status of Substitute Teachers

Organization of the substitute teaching corps—The prevailing methods of organizing the substitute staff and of assigning work result in substitute teachers working an average of 39 days during the year at an average rate of $12.21 per day. When the work available is spread so thin, there is not enough for the typical substitute teacher to make her feel she is a real and vital part of the instructional staff. A person has to have a greater quantity of work and a greater potential earning capacity in order to feel really serious about his job.

One possible solution would be for school districts to reorganize their substitute teaching staffs in such a way that they could carry on a considerable portion of this work thru regularly employed full-time, half-time, quarter-time, or other definitely specified part-time substitute teachers. This group of substitutes might well be called by some new title.[1]

The adoption of the above plan will not eliminate the need for the temporary, day-to-day type of substitute teacher, altho it will reduce greatly the proportion of the total substitute work carried on by such teachers. Temporary substitutes will be needed but in far smaller numbers. This would make it possible to exercise a greater degree of selectivity in building the temporary staff since, it was pointed out in Section II, a great many substitute teachers prefer substitute work to full-time work.

Thru such a plan the full-time, half-time, and quarter-time substitutes would be selected as carefully as regular teachers, and, except for the fact that they would move from one school to another from day to day, they would be treated as regular teachers.

The list of temporary substitutes, used in making assignments under such a plan, would be prepared in considerably greater detail. Under each name there would be a description of the amount and type of training, where the training was acquired, the types of schools in which the substitute has worked, the amount of full-time and substitute experience, age and other personal data, and finally the special talents and skills of the substitute.

Setting up such a plan will require a careful study of teacher absences by days of the week, months, and seasons. A school system that employs 300 regular teachers might find that it has at least six absences every day. This would mean that it could keep occupied six full-time substitutes, or 12 half-time substitutes, or 24 quarter-time substitutes. Such a study might also show that 10 full-time substitutes could take care of 80 percent of the absences during the year. In such a case, those not needed on a day when there are fewer than 10 absences could be assigned to some other work such as entering data on permanent records or helping to catalog films for the audio-visual aids center.

Thus, school systems might well consider the possibilities of reorganizing their substitute teaching staffs into two groups: the "roving teachers" (employed full-time, half-time, and quarter-time substitutes) and the "temporary substitutes" (those who work from day to day as needed). As much of the substitute work as possible would be assigned to the first group. More careful attention would be given to the selection and assignment of the second group.

Upgrading the education of substitute teachers—On the basis of the present study the professional qualifications of the substitute teaching staff are quite similar to those of the regular staff. The great majority of substitutes are both trained and experienced as regular teachers. At the same time the typical substitute has somewhat less education than the typical regular teacher. Moreover, the most recent of her training was acquired several years ago. The

[1] The term "substitute" often seems to lack dignity altho by improvement in personnel and professional policies the title might gain new stature. New titles suggested include visiting teacher and roving teacher neither of which appears to be entirely satisfactory.

problem is to provide additional training and to provide a type of training that will bring the substitute up to date with regard to instructional trends and technical developments in education.

Those who do not have at least a bachelor's degree should be urged to take additional college courses leading toward such a degree. Those who will comprise the "roving teacher" staff will likely respond willingly to such a request. However, those who are to comprise the "temporary" staff will need to know that such additional training will pay off in terms of more substitute assignments. It might be well for schoolboards to establish the policy of increasing the assignments for those who are willing to take additional work and to see that all such teachers know about the policy.

To meet the needs of those who have degrees but who have not been to school for 10 to 20 years, nearby colleges might be urged to set up special courses designed to survey modern trends and developments in education. Such might be designed as refresher courses not only for substitute teachers but also for regular teachers who have not been to school recently.

Considerable upgrading of the substitute staff could be accomplished by providing special summer workshops for substitute teachers, by planning for more observations of outstanding regular teachers, and by setting up demonstration teaching designed especially to meet the needs of substitute teachers. Then, too, with little or no additional work substitute teachers could be included in the many phases of the in-service education program for regular staff members.

Again, getting full-time and half-time substitutes to participate in such activities presents no great problem. Getting the temporary, day-to-day substitutes to participate will likely prove more difficult. An employer who offers only 30 to 40 days of work per year cannot expect an enthusiastic response to such a request. Boards of education might adopt a policy similar to that suggested previously: the more participation in such activities, the more work assignments. Also, where funds are available, schoolboards might pay substitutes for at least part of the time they spend in such activities. The investment of the required money would pay dividends in improved substitute work.

Building status for the job—The term "substitute" itself detracts from the stature and status of the substitute teaching job. There is the clear implication of not being good enough for the regular team. Unquestionably, a change in terminology would help over a period of years to change the typical person's mental reaction to the label "substitute teacher." Calling the full-time, half-time, and quarter-time substitute teachers "roving teachers" (or some other appropriate title) would help to create a different impression. Perhaps it would also be a good investment to devise a different label for day-to-day substitutes, for instance, "assistant teachers" or "supply teachers."

A change of name alone, however, will not completely solve the problem of building status for the substitute teacher. The fact that they work only occasionally, that they are not paid very much, that they are not expected to do as much as regular teachers—all have implications for the status of the job. *Actually, the job itself must become more important and more definite if it is to attain real stature.*

Dealing with the stop-gap nature of substitute work—The findings of the present study show that the typical substitute teacher stays in this field of work only three years and that many work only during periods of temporary financial stress. This situation raises the important problem of how to get people to stay in this work long enough to become really good at it—how to insure the children the benefits of mature and experienced substitute teachers. The most obvious answer lies in the organization of the substitute teaching corps. The best way to increase the holding power of substitute teaching jobs is to make them into not only real jobs but better jobs. It is believed that the creation of the "roving teacher" staff made up of full-time, half-time, and quarter-time substitute teachers with the same benefits, privileges, and responsibilities of regular teachers offers the one best hope of holding substitute teachers in substitute teaching jobs.

Of course, the above suggestion would contribute little or nothing toward the elimination of the stop-gap nature of day-to-day substitute work. For this group of teachers the problem is considerably more difficult. At the same time, however, the situation may not be entirely hopeless. One or more of the following measures would help:

1. A salary plan that provides credit for training and experience (full-time and substitute experience)

2. A daily wage that is more in line with what the work is worth and with what regular teachers are paid
3. A fair share of the important fringe benefits that are accorded regular teachers
4. Including substitute teachers in the professional and social affairs of the school district.

Teaching outside certificated fields—The amount of substitute teaching outside licensed subject areas and school divisions is extensive. This problem is particularly serious in the secondary schools, for about one-third of the substitutes at this level say they teach more frequently outside than inside their certificated subject areas. And, with the present shortage, not only of substitute teachers but of regular teachers in fields like science, mathematics, and industrial arts, it will be difficult and perhaps impossible to find a completely satisfactory solution to the problem.

The best chance of reducing the amount of out-of-field teaching lies in the suggested reorganization of the substitute teaching corps. In employing personnel for the "roving teacher" staff, school districts might seek people who are prepared to teach both elementary and secondary grades or who are licensed in perhaps four or five high-school subject areas. In certain instances a school district may wish to convert a regular teacher with broad training and experience into a full-time substitute teacher, giving this person additional salary and possibly some supervisory responsibilities. Thus, a job on the full-time substitute staff might serve as an intermediate step between a regular teaching job and a full-time supervisory job.

Such a staff would be small but would have a very wide range of talent and ability. Ideally, regardless of what teacher on the regular staff should be absent, there would be one person on the roving staff who could fill the gap.

Eliminating or substantially reducing the amount of out-of-field teaching among those on the day-to-day substitute staff is a far more difficult problem. The best hope lies in more efficient methods of recruiting day-to-day substitutes and in giving more careful attention to the distribution of personnel on this staff by school divisions and subjectmatter fields. Superintendents who have a serious shortage of substitute teachers for high-school mathematics and science might add to their staffs in these fields by effective use of newspaper, radio, and television publicity, and by enlisting the help of regular teachers in finding qualified personnel.

It almost goes without saying that more adequate salaries, a greater share in fringe benefits, and better treatment generally, would help to offset the seriousness of this problem.

Membership and participation in professional associations—The problem of substitute teachers not belonging to, or participating in, professional organizations can be largely attributed to the temporary, part-time nature of the work. Many substitutes are willing to help out in the classroom for a day or so at a time but are not anxious to assume further responsibilities and obligations. On the other hand, there are doubtlessly many who would welcome the opportunity to participate in practically all the activities sponsored by professional organizations, but who tend to stand off because they are not asked or invited to do so.

Substitute teachers have as much to gain from professional organizations as regular teachers. These organizations offer to substitute teachers a means of keeping in touch with professional affairs and current trends in education, a chance to meet and know various members of the full-time staff, a considerable volume of helpful professional literature, and many other benefits. One of the greatest gains would be from the development of the feeling on the part of the substitute teacher of really "belonging," of having a definite and important place in the profession.

Regular staff members would also have much to gain from the involvement of substitutes in professional activities. They would profit from a larger total membership in the professional group as well as from the additional human resources of the substitute teaching personnel. Association leaders may be surprised to know that an organization of 600 members might become an organization of over 700 members by effective membership recruiting among substitute teachers.

There would be no particular problem in appealing to members of the "roving teacher" corps. They would fit into the present scheme of things just as regular teachers do. Those employed on half-time or quarter-time contracts, however, would likely respond more readily to a membership fee that reflects the fact that they work only part time. Such teachers might

be admitted to membership by paying one-half or one-fourth the usual fee. This would be in line with the present trend toward the determination of local and state membership fees on the basis of a flat percent of the annual salary.

Enlisting the support and participation of the "temporary" corps would be considerably more difficult; however, the following suggested measures would have a strong appeal to many members of this group:

1. Every person in the day-to-day substitute staff might be contacted personally by some member of the organization. They could be told about the purposes, functions, and activities of the organization and be invited to join and to participate in all its activities.
2. Association leaders could make a special effort to involve substitute teaching personnel in the organization and activities of the association. Where their talents and interests could be used profitably, they might be appointed to serve on professional committees, on planning bodies, and in study groups.
3. The local association might appoint a joint committee of regular and substitute staff members to work on problems of instructional coordination. Similar committees might be set up at the state and national levels. Recommendations and reports of such committees could be widely disseminated among regular and substitute teaching personnel.
4. Local, state, and national associations now make wide use of discussion groups in their annual meetings. One discussion group in each such meeting might be built around the administration, supervision, or operation of substitute teaching services. Plans for such discussion groups could be circulated among substitute teaching personnel well in advance of the meeting.
5. Day-to-day substitute teachers might be admitted to membership in professional associations at a reduced membership fee. In states and localities where membership fees are based on a fixed percent of the salary earned during the preceding year, substitute teachers could be admitted on the same basis. Where state and local groups have a flat fee for all regular staff members, a flat fee of 25 to 50 percent of the regular fee might be established for day-to-day substitutes.
6. Professional associations could plan several activities that would constitute a direct service to substitute teachers. Producing a map of the school district and taking substitute teachers on a guided tour of the system are examples of services that could be provided by the local education association.

Salaries and salary scales—To get a more realistic picture of the substitute teacher's salary, one would have to consider what has to come out of the average of $12.21 per day. First, because she is likely to be married and have a husband gainfully employed, the income tax on this "extra" family income would probably be about $2.50. Whether she takes a bus, streetcar, taxi, or drives the family car to school, the cost will likely run at least 50 cents. Also, because she has so little time after she is called about the assignment, she probably has to buy her lunch at school—another 50 cents. With these assumed costs, the typical substitute teacher would net only $8.71 per day. This is little more than the prevailing rate for domestic help in the larger cities. A few substitutes who also had to hire baby-sitters for their own children reported they netted as little as $2.50 for a day's work. Under such conditions it is somewhat surprising that school systems have as many substitutes as they do.

The fact that boards of education pay only half as much for substitute teaching as for regular teaching seems an open admission that many boards do not consider substitute teaching important work.

It has been said that people get just about what they pay for in education; however, as far as substitute teaching is concerned, the people are probably getting considerably more than they are paying for. Where else in these days could one find as many college graduates who are willing to work for $8, $10, and $12 per day?

There is no question but that the quality of substitute service could be raised by the payment of higher daily salaries. To illustrate how present salary levels tend to reduce quality, the following actual case is cited:

> A substitute teacher in one of the larger cities is paid $10 per day for substitute work. She has three college degrees and 14 years of full-time teaching experience. She is one of the best substitutes in the system, according to those who supervise this work, and is called very frequently. This woman, however, also gives private music lessons for which she earns $4 per hour, or $24 for a six-hour day. Until recently she had only a few private students and thus could take nearly all the substitute work she was assigned. During the past two years her music classes have grown to the extent that she is going to have to give up one of her part-time jobs. There is no question but that she will give up substitute teaching, and the system will lose one of the best teachers in its temporary corps.

Daily rates of pay for beginning day-to-day substitute teachers might well be raised to, or very near, the level of beginning salaries of

regular teachers. Day-to-day rates should also be incorporated into a pay schedule that gives credit for both training and experience. Each school system might pattern its substitute teacher pay scale after its present scale for regular teachers.

To illustrate the implementation of the above suggestions, we might consider the present salary schedule for regular teachers in Community "X." The scale in Table 48 shows annual salaries and equivalent daily rates based on a 180-day school year. In a community having such a salary scale for regular teachers, the logical scale for day-to-day substitutes might be one like that shown in Table 49.

The schedule for substitute teachers (Table 49) is based on the assumption that a year of substitute experience is worth one-fourth as much as a year of full-time experience. Thus, the daily rate from one year to the next goes up 25 cents instead of $1.

The administration of the substitute teacher scale would require certain rules and regulations. One might well be: "Credit for a year of substitute teaching experience will be allowed only to those who taught at least 40 (45, or 50) days during the preceding year." Also, depending upon local conditions and the scarcity of qualified substitute teachers, local schoolboards may find it desirable to allow credit for whatever full-time teaching experience the substitute may have had. Under such a plan the board might allow a year of substitute experience for each year of full-time

TABLE 48.—SALARY SCALE FOR REGULAR TEACHERS (COMMUNITY "X")

Year of teaching	Teachers without degrees[a]		Teachers with bachelor's degree[a]		Teachers with master's degree[a]	
	Per year	Per day	Per year	Per day	Per year	Per day
1	2	3	4	5	6	7
First	$2,700	$15.00	$3,600	$20.00	$3,960	$22.00
Second	2,880	16.00	3,780	21.00	4,140	23.00
Third	3,060	17.00	3,960	22.00	4,320	24.00
Fourth	3,240	18.00	4,140	23.00	4,500	25.00
Fifth	3,420	19.00	4,320	24.00	4,680	26.00
Sixth	.....	.....	4,500	25.00	4,860	27.00
Seventh	.....	.....	4,680	26.00	5,040	28.00
Eighth	.....	.....	4,860	27.00	5,220	29.00
Ninth	.....	.....	5,040	28.00	5,400	30.00
Tenth	.....	.....	5,220	29.00	5,580	31.00
Eleventh	.....	.....	.....	.....	5,760	32.00
Twelfth	.....	.....	.....	.....	5,940	33.00
Thirteenth	.....	.....	.....	.....	6,120	34.00
Fourteenth	.....	.....	.....	.....	6,300	35.00

Note: The above is not a recommended scale for regular teachers; however, it is typical of many scales now in effect.
[a] The daily rates shown are based on a 180-day school year.

TABLE 49.—PER-DIEM SALARY SCALE FOR DAY-TO-DAY SUBSTITUTE TEACHERS (COMMUNITY "X")

Year of substitute teaching	Substitutes without a degree	Substitutes with bachelor's degree	Substitutes with master's degree
1	2	3	4
First	$15.00	$20.00	$22.00
Second	15.25	20.25	22.25
Third	15.50	20.50	22.50
Fourth	15.75	20.75	22.75
Fifth	16.00	21.00	23.00
Sixth	.....	21.25	23.25
Seventh	.....	21.50	23.50
Eighth	.....	21.75	23.75
Ninth	.....	22.00	24.00
Tenth	.....	22.25	24.25
Eleventh	.....	.....	24.50
Twelfth	.....	.....	24.75
Thirteenth	.....	.....	25.00
Fourteenth	.....	.....	25.25

experience, or perhaps even better, it might count each year of full-time experience the equivalent of two years of substitute experience. This latter possibility would mean that a substitute with a bachelor's degree and three years of full-time experience would start on the scale at $21.50 per day instead of $20.

Such a definite schedule of salaries for day-to-day substitute teachers would have many advantages in addition to establishing a generally higher level of substitute pay. First, such a scale would have a strong appeal to the better trained and more experienced substitute teachers. Second, it would tend to keep substitute teachers in substitute teaching, for it would provide a reward for extended service. Third, it would tend to encourage nondegree substitute teachers to take additional college work in order to increase their earning potential.

What has been said about salaries up to this point pertains to pay and pay scales for day-to-day substitutes in the temporary corps. This leaves the question of pay and pay scales for members of the "roving teacher" staff, those who might be employed on full-time, half-time, and quarter-time contracts.

Those who are assigned to full-time substitute teaching should be paid on the same basis as regular teachers. If such positions are to be regarded as an intermediate step between full-time teaching and full-time supervisory work, the rates might be set at somewhat higher levels than those in the regular teachers' salary scale.

Those employed on half-time contracts should be paid 50 percent of the amount they would be paid as full-time regular teachers. It would be logical here, however, to require a half-time substitute to teach two years before being given credit for one year of experience on the regular scale. The plan for quarter-time substitutes would follow the pattern recommended for half-time personnel—one-fourth of the pay scheduled for full-time personnel and four years of such work required to gain one experience step on the regular scale.

All teachers in the "roving teacher" corps should also receive appropriate additional amounts to offset the added costs of transportation. This might well be handled on an expense account basis.

Salaries for substitute teachers versus sick leave for regular teachers—Section II provided evidence that many school systems are financing sick leave for regular teachers at the expense of providing adequate salaries for substitute teachers. The practice of paying the absent regular teacher the difference between his regular salary and the salary of his substitute is neither fair nor educationally sound.

School systems should budget separately for sick leave and substitute teaching services. The amounts to be provided for each should be determined upon the merits of, and needs for, each of the two. The establishment of a substitute teachers' salary schedule similar to that suggested in the preceding section would, for all practical purposes, eliminate this problem.

Fringe benefits—The great majority of substitute teachers do not share in the fringe benefits commonly available to regular teachers. In typical practice, they get their comparatively modest day's pay and nothing more. Other workers attach great importance to the adequacy of fringe benefits, and substitute teachers are not likely to be an exception to the rule.

School systems might examine the possibility of extending to full-time substitutes the fringe benefits they now provide for regular staff members. This will involve no special difficulty since, for all practical purposes, they would occupy full-time jobs just like other staff members.

Half- and quarter-time substitutes might be granted tenure protection, written contracts, preferential consideration for full-time regular and full-time substitute jobs, credit in proportion to the amount of time they work toward experience increments in the salary schedule, and the opportunity to participate in the retirement system in proportion to the salaries they earn. In connection with retirement, the half- or quarter-time substitute should be permitted to contribute 5 or 6 percent of the salary she earns just as the regular teacher contributes 5 or 6 percent of the salary he earns. Such individual contributions should be matched dollar for dollar by the state or the employing board. If regular teachers are paid for four holidays during the year, half-time substitutes might receive pay for two and quarter-time substitutes for one.

A chance to share in certain types of fringe benefits might also help to hold people in the day-to-day staff for considerably longer periods of time. For instance, many who formerly held regular teaching jobs might welcome the opportunity to protect and add to the

retirement programs they started as regular teachers.

Day-to-day substitutes should enjoy tenure protection as substitute teachers. In other words, they should be guaranteed the privilege of remaining on the approved list as long as they meet the requirements and their work is satisfactory. At the same time, such substitutes might be required to serve a probationary period just as regular teachers are. Two successful years of substitute work and at least 30 days of substitute teaching in each year might constitute a desirable standard for the probationary period.

Devising a plan whereby the day-to-day substitute could share in holiday pay offers some difficulty. Three or four days of absence should not deprive the regular teacher of the pay for a particular holiday, but at the same time substitute teachers should also be treated fairly. One possible plan might be to pay the substitute for an extra day during the year provided she works a certain number of days. Thus, if there are four paid holidays for regular teachers, substitutes might draw an extra day's pay after working a total of 45 days and another after working a total of 90 days. Such a plan would contribute to high morale among day-to-day substitutes and make for better feeling between regular and substitute staff members.

School systems might establish the policy of giving day-to-day substitute teachers preferential treatment in the selection of persons for full-time jobs. In other words, where training, experience, and other factors are more or less equal, the person who has worked as a substitute in the system would get first consideration. Substitute teaching could thus become an effective testing and proving ground for prospective members of the regular staff.

Coordination and Working Relationships

Cooperative work on problems—The answers to several questions in the two questionnaires indicate that many regular teachers, school principals, and members of the central office staff have not given extensive thought to the need for, and possibilities of, building stronger partnerships with the substitute teaching staff. The literature in this field is severely limited and good practices have not been a matter of common knowledge.

Thus, in seeking improvement in working relationships, many school systems (perhaps the great majority of them) will have to "start from scratch." The logical place to begin is with the ideas and problems of those people who are affected by substitute teaching. Common sense would seem to indicate that members of the regular staff should sit down with members of the substitute staff for a free exchange of ideas on major problems. School systems should set up one or more joint committees of regular and substitute staff members to study, discuss, and produce recommendations on the following problems:

1. What official schoolboard rules and regulations are needed for the adequate administration of substitute teaching services?
2. Aside from schoolboard rules and regulations, how can the administration of substitute teaching services be improved?
3. How should individual school staffs plan and organize for the most effective use of substitute services? What are the principal's primary responsibilities? What are the responsibilities of the staff as a whole?
4. What types of help and cooperation does the individual substitute teacher need from the individual regular teacher who is likely to be absent? What are the basic responsibilities of the regular teacher?
5. What types of help and cooperation does the absent regular teacher need from the substitute who takes his place? What are the basic responsibilities of the substitute teacher to the regular teacher?
6. In what ways can students be involved in the task of improving instructional conditions for substitute teachers?
7. What are the needs for, and possibilities of, improving welfare conditions for substitute teachers? What can be done about salaries, retirement, holiday pay, and so on.

It is easy to visualize what could result from such a cooperative attack on problems. The board of education could receive suggestions and guidance with regard to an adequate set of rules and regulations. The central office could receive ideas about how to administer such services more efficiently and on how it could set up a more effective program of in-service education for substitute personnel. School principals, regular teachers, and substitute teachers might receive lists of suggestions of things they could do to make the service more effective. Eventually, the program of fringe benefits for substitute teachers might be greatly improved. The substitute staff itself might undergo a type of reorganization such

as that suggested earlier in this section. A useful handbook for substitute teachers could be developed. The students in each school might produce largely on their own a "code of student behavior under substitute teachers." It is difficult to predict all the possible results; there could be many more.

Lesson plans—A lesson plan or some type of information relative to what the students should be doing is necessary if the substitute teacher is to be expected to contribute to the uninterrupted growth and development of children.

When an absence can be foreseen as much as 24 hours in advance, there is little excuse for the regular teacher not leaving some suggestions as to what should be done during an anticipated absence of short duration. Such should be required when regular teachers can anticipate their absences. Also, in cases where schools or school systems regularly require all teachers to submit lesson plans several days or a week in advance, there is little excuse for these not reaching the substitute when needed. In cases where schools do not require staff members to submit lesson plans regularly, all might be asked to draft one, two, or three special lessons or class projects that might be used any time during the year. These could be filed and held in anticipation of an unexpected absence.

The earlier recommendation with regard to cooperative work on problems could set the stage for the development of more adequate and useful lesson plans. Regular and substitute staff members need to exchange ideas on this subject. The substitutes should have the opportunity to advise regular teachers with regard to the things they need in a typical lesson plan. A lesson plan for use by the typical substitute teacher might be somewhat different from the plan the regular teacher sets up for his own guidance.

Adequate advance notice—The lack of advance notice is another problem of major concern to substitute teachers; however, because teachers frequently cannot predict illness in advance, it is a difficult problem to solve.

An efficient system of reporting the absence and of contacting an appropriate substitute may serve to give the substitute a few extra minutes. Having someone available at night who can receive calls from teachers expecting to be absent and who can contact substitutes up to as late as midnight might give many substitutes several extra hours of warning. Devising a workable plan poses a challenge to those who administer substitute teaching. A joint committee on the administration of substitute services suggested earlier may find it possible to simplify and streamline the present communications system.

The problem can also be attacked in several indirect ways. First, adequate instructional plans left by the regular teacher lessens the need for as much advance notice. Second, the substitute who has her own special bag of tricks—a good story to tell, a game to play, an unusually interesting lesson of her own to teach—planned in advance and ready to use on a moment's notice, will not need as much notice as she otherwise would.

Advance preparation of students—A large number of substitute teachers say student behavior, including disciplinary problems, is a serious obstacle to effective substitute work. The study indicates that only a little over one-half the substitutes in typical situations see any evidence that students have been prepared in advance in how to receive and work with them. It seems reasonable, therefore, to expect all regular teachers to devote sufficient time early in the school year to training students in their classes in how to cooperate with a substitute teacher.

Students in each classroom should discuss among themselves the problems of working with a substitute teacher, then develop a series of recommendations which might constitute a class code of student behavior. The leaders of various classes might be organized into a committee to represent the entire school, and from the recommendations developed in each class, build an over-all code of student behavior. Such a code might define not only acceptable class behavior but also what the class has the right to expect of the visiting substitute.

If the regular teacher can foresee a particular absence in advance and knows who will be substituting for him, he might attempt to build up the substitute in the eyes of the pupils by telling them something about the substitute's training for, and experience in, teaching. He could also tell the students what kind of person the substitute is and what she will probably expect of them.

Finally, the regular teacher can help set the stage for successful substitute teaching by let-

ting the students know that he will recognize all grades given and assignments made while the substitute is in charge. Such action helps to make students aware that the substitute's work is important.

Checking and correcting written work—The substitute teacher should take every precaution against letting routine work pile up for the absent regular teacher. This implies that the substitute check, grade, or correct the routine written work handed in or done while she is in charge of the class. This study shows that a significant proportion of the substitute teachers in typical practice process little or no such work while they are in charge.

Certainly, regular teachers and substitute teachers should be encouraged to exchange ideas and reach a consensus with regard to the types of work that should be carried on during the regular staff member's absence. The regular teacher may not want the substitute to grade or check long-range projects that extend over several days or weeks, but, on the other hand, he may want the substitute to carry thru on all seatwork and homework involving only one or two day's work. Such problems should not be difficult to resolve if representatives of the two groups of teachers have the opportunity to exchange ideas on them.

Reporting on work accomplished—Whereas all substitute teachers should leave for the absent regular teachers a written report on work accomplished during the absence, a little less than two-thirds in typical practice do this. Here again regular teachers and substitute teachers should exchange ideas on the specific types of items that should be included in such a report. A cooperative approach, such as that suggested under the heading "Cooperative work on problems," might result in a standardized report blank. Such a blank might include these items as well as others:

1. Assignments made—subject by subject or class by class.
2. Work accomplished—subject by subject or class by class.
3. Notes about important things happening to individual pupils. Examples: "Joe has scarlet fever; we sent him a 'get well' card." "Betty won that essay contest sponsored by the newspaper." "Bill and Roy have ended their feud; they are good pals again." "According to the grapevine, Mary is going to quit school in February. She will be 16 then. You may want to talk with her."
4. Notes about outstanding work done by individual pupils. Examples: "Jerry gave a truly outstanding report on his trip to Boston." "Frank H. surprised all of us on the arithmetic test; he worked 48 of the 50 problems right. Since he has not been doing so well lately, I thought you would be glad to hear he's getting down to business again."

Providing information on school routine—It was shown in Section III that substitute teachers need more information about school routine. It is suggested, therefore, that every school having a faculty of more than four or five teachers prepare an adequate set of instructions, duplicate them in suitable quantities, and see that every substitute teacher assigned to the building is given a copy.

The production of the instructions might well result from a cooperative project involving all regular staff members and possibly some of the frequently employed substitute teachers.

A particular set of instructions might contain considerably more than a description of the routine of the school. Sections on the history of the school, its philosophy and objectives, its over-all program, what the school expects of the substitute, and what the substitute can expect of regular staff members would be well worth including. The full development of such information might take the form of a short handbook for substitute teachers.

Being friendly and helpful—An escort to the classroom, an introduction to the pupils with whom the substitute is going to work, and an introduction to regular teachers in nearby rooms—all are considered helpful by the great majority of substitute teachers. In typical practice, however, almost 4 in 10 are not escorted to their rooms, 2 in 3 are not introduced to pupils they are going to teach, and 1 in 3 is not introduced to teachers in nearby rooms. Such a situation leaves much room for improvement. These three types of help are easy to provide and should become standard practice in all schools.

Of course, there are many other ways in which regular teachers can be both friendly and helpful. Some schools make a practice of assigning one regular teacher to advise and help each substitute who works in the school. In a few cases, one or more members of the regular staff make it a point to invite the substitute to eat lunch with them. One school faculty invites all substitutes who work fre-

quently in their building to all their social functions.

Learning to use audio-visual equipment and materials—Since a large proportion of the substitute teachers do not know how to use audio-visual equipment and materials, it is suggested that every school system set up and put into operation some intensive inservice training in this field for substitute personnel.

Such training could be planned as a one- or two-day annual workshop for substitute teachers. Those in charge of audio-visual education for the school system could explain to substitutes the services offered in this field and how materials are ordered and returned. Regular teachers who are highly skilled in this field could demonstrate preplanning and follow-up activities which help to increase the effectiveness of a film or filmstrip. The substitutes themselves could experiment and practice using the various types of equipment.

All substitute teachers should be placed on the mailing list to receive regularly all audio-visual education bulletins and all announcements of new films, filmstrips, and recordings purchased by the school system. In cases where school systems have a full-time audio-visual staff and an extensive collection of materials, the audio-visual staff might prepare at least once each year a special listing of materials that are especially suitable for substitute teachers. This might suggest five or six films or filmstrips for each elementary-school grade and for each secondary-school subject which might be used to an advantage any time during the year.

Increasing the supply of substitute teachers—There are at least three ways to attack the critical shortage of substitute teachers: to reorganize the substitute teaching force into the two groups suggested earlier and thus reduce the need for as many substitute teachers; to organize and carry on a more thoro and efficient program of recruiting qualified people; to raise salaries, strengthen the program of fringe benefits, and improve other conditions under which substitute teachers work.

How the suggested plan of reorganizing the substitute teaching staff can help to solve the supply problem has already been discussed and will not be repeated here. How higher salaries, more work, and a greater share in fringe benefits can help is obvious and requires no further elaboration.

Most school systems have done little or nothing in the field of recruiting substitute teachers, altho many have developed elaborate and effective plans for recruiting regular teachers. And, strangely enough, in spite of the low wage rates, school superintendents by and large have expected candidates for this work to come to them rather than going out themselves and looking for people willing to do the work. No superintendent has exhausted the possibilities of relieving the shortage of substitute teachers until he has:

1. Secured the support of newspapers, radio, and other mass mediums in locating prospective substitute teachers
2. Conducted a thoro canvass of former full-time teachers residing in the school district
3. Asked all regular staff members to suggest qualified people who might be interested in this work
4. Asked every teacher who resigns during the year if he would be willing to accept substitute assignments
5. Enlisted the cooperation of nearby colleges and universities in locating people who have been trained as teachers but who have not taken full-time jobs.

Of one thing we can be reasonably certain: substitute teaching does not pay enough or provide enough work to attract great numbers of candidates. We have to do more toward seeking the candidates rather than expecting them to seek the job.

Schoolboard rules and regulations—Since an adequate set of official policies governing substitute teachers and substitute teaching forms the basis for effective central office-substitute teacher relationships, it is suggested that school systems take immediate steps to devise and put into effect rules and regulations covering at least the following subjects:

1. *The daily salary rate or a substitute teachers' salary scale.* If the suggestions of this study are followed, the board will adopt a salary scale which provides automatic increments for both training and experience.
2. *Policies governing the allowance of specific fringe benefits and rules for the administration of these benefits.* Such a matter as how much credit shall be allowed for substitute teaching experience should the substitute become a full-time teacher should not be overlooked.
3. *Minimum general qualifications to be required of all substitute teachers and special requirements for certain types of personnel.* General qualifications might be expressed as "a college degree" or "a first-class certificate." Special requirements might be stated as "15 semester

hours of college-level mathematics for substitutes teaching high-school mathematics," and so on.

4. *Health requirements.* These might well be identical with those applying to regular teachers.
5. *Allocation of authority to the superintendent and his staff to organize and administer the program of substitute teaching services.*
6. *General and specific responsibilities of the school principal for substitute teaching service.* This might include responsibility for supervision, rating, and reporting on substitute service.
7. *General and specific responsibilities of the individual regular teacher, who is likely to be absent, to the substitute teacher.* This might include leaving suggestions of work to be done, personal information about pupils, and so on.
8. *General and specific responsibilities of the substitute teacher to the absent regular teacher.* A report on work accomplished might be one specific responsibility.
9. *General and specific responsibilities of the substitute teacher to the students.* These should be similar to those of the regular teacher when he is in charge.

As pointed out earlier, the board of education will likely get a better and more workable set of rules and regulations if it asks the regular staff and substitute teachers for suggestions. Thus, the construction of rules and regulations might well begin in a cooperative project involving one or more joint committees of regular and substitute staff members.

Special meetings for substitute teachers—Every school system might hold at least two special meetings for substitute teachers each year: an orientation meeting before school opens in the fall and a meeting in which regular and substitute teachers have the opportunity to exchange ideas on mutual problems.

The orientation meeting for substitute personnel might be set up as part of a general orientation meeting for all personnel, or as an entirely separate meeting. All substitute personnel should be urged to attend and all new substitutes required to attend. Such a meeting might be built around the following topics and perhaps others depending upon peculiar local needs and conditions:

1. A general description of the school system, its organization, its goals, its philosophy. This might be the subject of an opening speech by the superintendent or an assistant superintendent.
2. An explanation of the special services provided by the school system to teachers and students —guidance, health, audio-visual, school lunch, and so on—by those in charge of these services.
3. A review and open discussion of the rules and regulations governing substitute teachers and substitute teaching.
4. A discussion of the modern trends and developments in education that are reflected in the local program—the core program, sociometrics, developmental tasks, and so on. This would help to compensate for the general lack of recent training and experience.
5. A consideration of the ways in which the substitute can be most helpful to the absent regular teacher. For this topic the total group might be broken down into small discussion groups.
6. A guided tour of the school system. In small systems the substitutes might visit every school; in large systems, representative schools in various parts of the city.

The second type of special annual meeting—the meeting to exchange ideas with regular staff members—might well involve all substitute teachers in small school systems and an equal representation of regular teachers. In large systems substitute teachers might attend on a rotating basis—half of the group one year and half the next—or several area meetings might be held simultaneously and all substitutes attend every year. In both large and small school systems the representation of regular staff members might also be on a rotating basis so that over a period of years every regular teacher would have a chance to participate.

This type of meeting could profitably use the workshop approach. The total group might first hear a description of the common problems arising from the working relationships between regular and substitute teachers. Such could be based upon the research and periodical literature devoted to this subject in recent years. The meeting could then be broken down into small discussion groups. These groups could be organized according to various phases of the over-all problem or according to grade levels. At the end of the meeting, leaders of the various discussion groups might report their accomplishments to the total group.

Each such annual meeting should result in a written report, and copies should be made available not only to all substitute teachers but also to all regular staff members.

A worthwhile follow-up activity would be faculty meetings in each school to discuss the implementation of the recommendations in actual working situations. Such faculty meet-

ings might well involve a few of the substitute teachers who work frequently in the building.

If the school system has never held such a meeting, the first of the series might well be aimed at the production of a school system handbook for substitute teachers.

Facing the Major Tasks

All problems set forth in this section are believed to be important ones. It is also believed that each of the suggestions for dealing with these problems will bring about at least some improvement in conditions prevailing at present. At the same time, certain measures are vastly more important than others. Some problems are of such magnitude that they completely overshadow all others.

One of the very important basic problems in improving substitute teaching service is that of finding ways to handle a large portion of this work thru regularly employed full-time personnel. Perhaps our greatest challenge in this field lies in developing a well-qualified, highly skilled full-time substitute teacher who thru experience and training becomes a well-developed specialist at teaching in one school today, in another school tomorrow, and in still another the day after tomorrow.

The job of substitute teaching must become a better and more important job. The creation of more full-time jobs will help in this connection, but all substitute work cannot be handled thru full-time personnel. Day-to-day substitute teaching also has to become a better job if it is to attract and hold better personnel. There is no question but that a wage of $20 to $25 per day would attract and hold better people than the rates of $8, $10, and $12 now prevailing in many systems.

Realistic and workable solutions to problems of instructional coordination can be obtained only thru the joint efforts of regular and substitute personnel. This implies that we need more and more personal contacts between these teachers, more and more face-to-face situations in which they can exchange ideas on how to be more helpful to one another. *Most urban-school systems in the United States have never taken the first step toward the development of cooperative work in this field.*

For some strange reason, regular school personnel fail to realize that substitute teachers have many of the same needs that regular teachers have. Considerable good can come from just thinking about substitute teachers every time we think about and make plans to help regular teachers. For instance, substitute teachers need programs of orientation just as much as regular teachers. They, as well as regular teachers, need decent wages, a chance to attend stimulating meetings, opportunities to observe outstanding teaching, and a feeling that they are doing an important job.

The broad general problems described in these last few paragraphs are the mountain ranges to be crossed on the road to more effective substitute teaching service. Of course, there are other barriers but these are hills, not mountains.

Related Publications

1. Austin, Texas, Public Schools. *Handbook for Substitute Teachers.* Austin, Texas: Board of Education, 1952. 13 p. (Mimeo.)

2. Baldwin, Clare C. *Organization and Administration of Substitute-Teaching Service in City School Systems.* Contributions to Education, No. 615. New York: Teachers College, Columbia University, 1934. 115 p.

3. Chamberlain, Leo M., and Kindred, Leslie W. *The Teacher and School Organization.* Second edition. New York: Prentice-Hall, 1949. "Substitute Service," p. 233-34.

4. Conners, F. Herrick. *The Substitute Teacher Service in the Public Schools.* Doctor's thesis. Columbus: Ohio State University, 1927. 463 p. (Typewritten)

5. Cooke, Dennis H. *Administering the Teaching Personnel.* Chicago: Benjamin H. Sanborn and Co., 1939. Chapter 6, "Administering Teacher Absences and Substitute-Teacher Service," p. 150-82.

6. Denver, Colorado, Public Schools. *General Instructions to All Substitute Teachers.* Denver: Board of Education. 1953. 6 p. (Mimeo.)

7. Elizabeth, New Jersey, Public Schools. *Orientation of Day-by-Day Substitute Teachers.* Elizabeth: Board of Education, 1952. 32 p. (Mimeo.)

8. Lambert, Sam M. *Status and Working Relationships of Substitute Teachers in Urban School Systems.* Doctor's thesis. Washington, D. C.: George Washington University, 1955. 287 p. (Typewritten)

9. MacVittie, Robert W. "We Train Our Substitute Teachers." *School Executive* 72: 58-59; February 1953.

10. Melamed, Deborah M. "Preparing the Way for the Substitute Teacher." *Nation's Schools* 51: 50-53; February 1953.

11. National Education Association, Research Division. "Teacher Personnel Procedures, 1950-51: Employment Conditions in Service." *Research Bulletin* 30: 35-63; April 1952. "Substitute Service," p. 55-58.

12. New England School Development Council. *1953 Salary Schedules and Personnel Policies.* Cambridge, Mass.: the Council, 1953. p. 21-24.

13. Pittenger, Benjamin F. *Local Public School Administration.* New York: McGraw-Hill Book Co., 1951. 512 p. "Substitute Service," p. 175-77.

14. Reeder, Ward G. *Fundamentals of Public School Administration.* Third edition. New York: Macmillan Co., 1951. "Substitute-Teacher Service," p. 175-87.

15. St. Paul, Minnesota, Public Schools. *Substitute Teacher Handbook.* St. Paul: Board of Education, not dated. 8 p.

16. Turner, Floyd V. *Administrative Policies Governing Substitute-Teacher Service in Major American Cities.* Doctor's thesis. Nashville, Tenn.: George Peabody College for Teachers, 1952. 170 p. (Typewritten)

THE ultimate values of the public school are human and individual. The administration of schools, the function of teaching, and the services performed by the different agencies of the school are intended for the benefit of the pupil. In order to provide the optimum opportunity for intellectual growth, it is particularly important that every phase of the instructional program be administered with the highest degree of efficiency and foresight. More specifically, it is essential that substitute-teaching service be recognized as an integral part of what is commonly thought of as the regular instructional service, requiring at once a planned organization of all the related administrative procedures. When a class remains untaught because of the unprovided-for absence of a regular teacher, the administration stands indicted. All of the other contributing agencies of the school, as they affect this class, are marking time. Good administration will insure a continuous day-by-day program of instruction for every child.—Baldwin, Clare Charles. *Organization and Administration of Substitute-Teaching Service in City School Systems.* Contributions to Education, No. 615. New York: Teachers College, Columbia University, 1934. p. 1.

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FOREWORD

ADEQUATE salaries are essential to the welfare of teachers and continue to be a major purpose of the Association. It was this thought, among others, that led the leaders of the early 1920's to establish the NEA Research Division. This unit made its first study of salaries in 1922-23 and has done so thereafter every two years. The present survey for 1954-55 is the seventeenth in the series.

The Association has long been interested in the economic status of all teachers. As early as 1863 it resolved "that the situation of the teacher must be made desirable by adequate compensation." Decade after decade the subject was discussed at annual conventions; committees presented facts and made recommendations. These efforts helped to build an awareness of conditions both in the minds of teachers and in the consciences of the public. The Association's effort became systematic by the work of the Salary Committee of the early 1920's and the surveys of the Research Division. On the basis of representative facts, periodically supplied, great strides forward have been made.

The present study shows that the average salary of all classroom teachers in the largest urban school systems has increased 112.2 percent since 1930-31. Even larger percentage gains have been made in the urban places of smaller size. These gains reflect the higher quality of preparation and service of teachers and the increasing public appreciation of these higher standards.

While we rejoice at the advances made in the number of dollars paid for teaching service, we must keep in mind and help the public to understand that ultimately *the purchasing power* of the dollar is of prime importance. For example, in communities of 30,000-100,000 population, the average salary of all classroom teachers, which has reached $4242 in 1954-55, is worth $3711 in 1947-1949 dollars and only $2220 in 1935-1939 dollars. These figures indicate, and other facts clearly demonstrate, that the relative economic position of teachers has made little or no gain since 1940 among wage and salary employees.

We cannot be complacent about this salary situation. It is one of the major factors causing and perpetuating the shortage of qualified teachers. Too many young persons of first-class ability are unwilling to accept salaries that compare unfavorably with what they can earn in other occupations where preparation and community expectations are far less. Too many competent and experienced teachers leave the profession each year because they cannot afford to be teachers. These conditions are not only destructive to the profession but they are depriving American children and youth of the quality of education that is rightfully theirs. Thus the salary problem demands continuous attention.

The present survey represents, not only a great amount of work by the NEA Research Division, but many hours of unselfish effort by superintendents of schools and their staffs who filled out complex questionnaires. To all who have helped to make the study possible, the Association and the profession acknowledge their debt.

WILLIAM G. CARR, *Executive Secretary,*
National Education Association.

I. Introduction

Biennially, since 1922-23, the Research Division of the National Education Association has conducted surveys of the salaries paid in urban school districts. This RESEARCH BULLETIN presents a summary of the salaries paid urban school employees in 1954-55.

Method of Making Survey

The procedure in making this study was similar to that followed in previous years. The inquiry forms were mailed to superintendents of schools in September 1954. A sample section of this questionnaire is illustrated on page 87 of this bulletin. Follow-up letters and telegrams were sent to secure the largest possible sampling. Correspondence was carried on whenever reasonable doubts occurred concerning the meaning and the accuracy of the reports received.

Groupings of School Districts

The groupings used in classifying school districts in surveys prior to 1952-53 have been based on the census population of the central city located within the school district. The 1950 census was used for 1950-51; the 1940 census for 1940-41 thru 1948-49; and the 1930 census for years prior to 1940-41.

In recent years, the classifying of city school districts by the census population of the central city has become less and less satisfactory. Some cities are parts of county-unit school systems and the statistics cannot be separated. Some cities are in groups of cooperating urban and rural areas that have formed unified school districts. There is an increasing tendency for large cities to include contiguous areas in their school districts, altho not annexed to the municipalities themselves. The questionnaire replies received from these county and consolidated districts usually include figures for each entire district rather than one urban center, and are likely to be incorrectly classified when grouped according to census population of the major city. For example, the city of Charleston, West Virginia, had a population of 73,501 in 1950 but it is part of the Kanawha County School System, with a population of 239,629.

In 1952-53 the NEA Research Division gave up its former unsuccessful efforts to get separate figures for central cities and began instead to establish a list of *urban school districts* and to classify the districts on the basis of their total population. The information was collected by means of a questionnaire, census figures, and correspondence, and a tentative classification was made for use in the 1952-53 survey. Since that time constant modifications have been made as further information has been received and a revised classification was made for use in the current study.

The changes from the former list of city school systems have been chiefly four: (a) moving certain districts to a higher population group; (b) including county-unit school systems as urban districts when they contain a city of 30,000 or more population or when half the population is in urban areas; (c) including town school systems as urban districts when half the population is in a city or cities located therein, or when the town is located within the urban-fringe areas of a large city; and (d) omitting cities of less than 30,000 population in county units that are predominantly rural.

The present Group I includes urban school districts over 500,000 in population; Group II designates urban school districts 100,000 to 500,000 in population; Group III applies to urban school districts 30,000 to 100,000 in

TABLE 1.—NUMBER OF URBAN SCHOOL DISTRICTS INCLUDED IN STUDY

Group number	Population ranges	Number of urban school districts according to 1950 population	Number of urban school districts reporting	Percent replying
1	2	3	4	5
I	Over 500,000	18	18	100.0%
II	100,000 to 500,000	124	115	92.7
III	30,000 to 100,000	414	368	88.9
IV	10,000 to 30,000	1,211	799	66.0
V	5,000 to 10,000	1,222	726	59.4
VI	2,500 to 5,000	854	440	51.5
Total		3,843	2,466	64.2%

population; and so on thru Group VI. See Table 1 on page 61.

The six population groups as defined in columns 1 and 2 of Table 1 are used consistently thruout this bulletin and are referred to by Roman numerals. The use of the group designations, both in text and tables, conserves space and avoids cumbersome repetition of the population limits.

Cautions in Using Data

In making comparisons of trends the following must be kept in mind:

First, no attempt has been made to revise the figures shown in this bulletin for former years to conform to the changes in classification of school districts used in 1952-53 and 1953-54. The salaries shown in earlier years are slightly higher than they would have been if this new classification had been used. An exception is Group I, which was not changed by the new classification.

Second, the population groupings used are based on the census which is taken only once a decade, while in each year a few districts cross the line into new population groups, usually to a higher group. Because the census years were 1930, 1940, and 1950, median salaries shown for 1930-31, 1940-41, and 1950-51 are probably closely representative of the true population groupings. The salaries in an intercensus year such as 1952-53, because the shifts in population are not represented in the classification of districts, are higher than they would be if larger districts had been moved to the next higher group and smaller districts added from the next lower group. This is true, even more significantly, of the 1954-55 figures.

Third, because school salaries change thruout the year, and each report is based on figures reported early in the school year, the figures shown here are slightly lower than if end-of-the-year figures could have been used.

Altho the influence of these shifts has not been fully explored, it is probable that the net effect in this bulletin is to show slightly lower increases over previous years than actually occurred.

Change in Inquiry Form

Since 1952-53 the section which requests salaries paid administrative and supervisory officers was changed on the inquiry forms sent to urban school districts over 30,000 in population. This change consisted mainly of separating the directors and supervisors from the assistant directors and assistant supervisors, who in previous years had been grouped together.

Owing to this change, median salaries for these school employees are not included in Tables 2, 3, and 4 because comparable salary trends are not available. However, the median salaries paid in 1954-55 to all types of directors and supervisors and of assistant directors and assistant supervisors are shown in Table 5 for urban school districts over 30,000 in population.

Size of Sample

Table 1 shows the classifications used, the number of urban school districts in each of the six population groups, and the number and percent of usable replies.

A total of 2466 urban school districts is included in the salary survey for this year. This is more than the total reporting in any year except 1952-53, and the number of returns for districts over 30,000 in population for 1954-55 exceeds all previous bienniums by 55.

This study covers 64.2 percent of all urban school districts above 2500 in population and 90.1 percent of those with more than 30,000 population. It is estimated that 87 percent of all employees in urban school systems in the United States are included in the tabulations. The number of school employees of all classes included in this study is 614,728.

II. Trends in Salaries Paid, 1930-31 to 1954-55

It is possible thru the NEA Research Division's salary surveys to compare median [1] salaries of school employees for a quarter of a century. Tables 2, 3, 4, 6, 7, and 8 of the present section show periodic comparisons for selected years since 1930-31. The cautions given in Section I of this bulletin should be kept in mind, however, when using these comparisons.

General Trends Since 1930-31

In 1930-31 the salaries of teachers in urban school districts stood at their highest point up to that date both in total amount and in purchasing power. A year or two thereafter the economic depression led to widespread unemployment and curtailment of salaries. The medians reached their lowest levels in the school year 1934-35.

The 1936-37 and 1938-39 surveys revealed medians of salaries progressively higher than those in the 1934-35 study. With the exception of one population group, there were increases from 1938-39 to 1940-41. In the big industrial centers in Group I the opening of World War II drew off many experienced teachers. Their temporary replacements were paid at lower salaries so that for some positions there was an actual decrease in median salaries from 1938-39 to 1940-41. By 1940-41 the medians in Groups I thru IV equaled or exceeded those reported for the same groups in 1930-31. Not until 1942-43 had Groups V and VI restored salaries so that the median salaries approximated those of 1930-31.

The 1944-45 survey showed a definite upward turn of the medians for most types of school positions in all groups. After 1944-45 the general trend has been sharply upward as compared with the slow recovery between 1934-35 and 1942-43.

The median salaries paid, as shown by the present bulletin, are the highest reported to date in this series of biennial surveys. To say this, however, is to give but part of the picture since the vital question to the individual is the *purchasing power of the take-home pay*. This question will be discussed later in the present section (page 71).

Trends of Salaries in Specific Groups

For the first time in this series, the number of school districts reporting for each type of school employee in 1954-55 is being shown. The relative frequency with which school districts report a particular type of employee should be considered in any use of the figures given in this bulletin. For example, in Group I (see Table 2) the median shown for supervising junior high-school deans and department heads for 1954-55 is $7286 and that for supervising junior high-school assistant principals is $6913. From this it would appear that supervising deans and department heads were being paid higher salaries than the supervising assistant principals, but such is not the case.

The first mentioned positions were reported by only two districts, paying relatively high salaries, while positions of the second type were reported by 10 districts. The comparable median salary paid the supervising junior high-school assistant principals for the two districts also reporting supervising deans and department heads is $8614. This illustrates the importance of the use of column 2 of Tables 2, 3, 4, 6, 7, and 8 in making any comparisons between the various types of employees.

The tables in this section show the adjustments in relative position of the median salaries paid to various types of school personnel. The discussion will be limited to the median salaries of classroom teachers, principals, superintendents of schools, and secretaries of schoolboards.

Classroom teachers—The median salaries of all classroom teachers in 1954-55 are as follows for urban school districts of the various sizes: Group I, $5287; Group II, $4213; Group III, $4242; Group IV, $4034; Group V, $3745; and Group VI, $3613. These medians are from 12 to 7 percent higher than the comparable medians of 1952-53; they are from 177 to 110 percent higher than the similar medians of the 1930-31 survey.

In addition to the generally substantial rise in actual salaries paid to classroom teachers during the past 25 years there have been three other major trends. The first of these has been the reduction in the differences in the salaries paid in the various population groups. In

[1] Those not familiar with the term "median" may look upon it as having, for ordinary purposes, the same general significance as the familiar "arithmetic mean" or "average." More specifically, the best paid 50 percent of a group of teachers receive salaries equal to, or greater than, the median salary, and the poorest paid 50 percent of a group of teachers receive salaries equal to, or less than, the median.

1930-31 the median salary paid in Group I districts was 90.7 percent higher than that paid in Group VI districts. For the other population groups this percent was: Group II, 53.5 percent: Group III, 34.7 percent; Group IV, 18.7 percent; and Group V, 9.7 percent.

In 1954-55 similar percents were: Group I, 46.3 percent; Group II, 16.6 percent; Group III, 17.4 percent; Group IV, 11.7 percent; and Group V, 3.7 percent.

The tendency for salaries to increase with the size of the district was one of the major causes of a high employment turnover in rural areas and small towns. It made for an acute teacher shortage in the war years between 1941 and 1945 by drawing school personnel from the small to the large communities. On the basis of trends in median salaries paid classroom teachers, the former advantages in the larger urban areas are decreasing.

TABLE 2.—TRENDS IN SALARIES PAID EMPLOYEES IN URBAN SCHOOL DISTRICTS OVER 500,000 IN POPULATION, 1930-31 TO 1954-55 (GROUP I)

Type of school employee	Number of systems reporting each type of employee in 1954-55	Median salaries paid in					Percent of increase			
		1930-31	1940-41	1950-51	1952-53	1954-55	1930-31 1954-55	1940-41 1954-55	1950-51 1954-55	1952-53 1954-55
1	2	3	4	5	6	7	8	9	10	11
Classroom teachers:										
Kindergarten	15	$2,320	$2,371	$4,029	$4,501	$4,850	109.1%	104.6%	20.4%	7.8%
Elementary school	18	2,407	2,434	4,172	4,817	5,110	112.3	109.9	22.5	6.1
Atypical classes	15	2,600	2,450	4,341	4,887	5,242	101.6	114.0	20.8	7.3
Junior high school	14	2,694	2,801	4,501	4,897	4,931	83.0	76.0	9.6	0.7
High school	18	3,061	3,106	4,947	5,526	5,864	91.6	88.8	18.5	6.1
Junior college	5	.....	.....	4,768	5,758	6,373	....	....	33.7	10.7
Part-time or continuation school	5	2,878	2,818	4,005	4,661	4,855	68.7	72.3	21.2	4.2
Total all regular classroom teachers[a]	18	2,492	2,708	4,456	4,953	5,287	112.2	95.2	18.6	6.7
Teaching department heads, deans, and assistant principals:[b]										
Junior high school	2	.....	.....	5,816	6,419	7,115	....	....	22.3	10.8
High school	2	.....	.....	5,598	6,394	6,345	....	....	13.3	−0.8
Supervising deans, department heads, and assistant principals:										
Elementary school:										
Assistant principals	11	4,380	4,665	5,687	6,617	7,475	70.7	60.2	31.4	13.0
Junior high school:										
Deans and department heads	2	.....	.....	5,750	6,430	7,286	....	....	26.7	13.3
Assistant principals	10	3,677	4,610	6,126	6,323	6,913	88.0	50.0	12.8	9.3
High school:										
Deans	2	.....	.....	4,586	5,290	6,063	....	....	32.2	14.6
Department heads	4	.....	.....	5,684	7,259	8,056	....	....	41.7	11.0
Assistant principals	16	5,643	4,161	6,375	7,278	8,045	42.6	93.3	26.2	10.5
Junior college:										
Deans, department heads, and assistant principals[b]	2	.....	.....	7,850	9,138	9,250	....	....	17.8	1.2
Principals:										
Supervising elementary school	18	4,135	3,966	6,283	7,305	7,956	92.4	100.6	26.6	8.9
Junior high school	14	4,969	5,134	7,115	7,773	8,600	73.1	67.5	20.9	10.6
High school	18	5,674	5,412	8,107	9,156	9,692	70.8	79.1	19.6	5.9
Junior college	5	.....	.....	9,600	9,813	11,750	....	....	22.4	19.7
Part-time, continuation, or adult education school	6	5,500	5,083	7,684	8,665	9,261	68.4	82.2	20.5	6.9
Administrative and supervisory staff:[c]										
Superintendents of schools	18	15,100	13,200	18,333	18,382	20,750	37.4	57.2	13.2	12.9
Associate, assistant, or deputy superintendents	18	7,583	6,482	10,679	12,402	13,022	71.7	100.9	21.9	5.0
Administrative assistants	11	.....	.....	7,350	7,900	8,439	....	....	14.8	6.8
Secretaries of boards of education	13	6,250	4,800	8,750	10,182	10,294	64.7	114.5	17.6	1.1
Business managers	8	8,500	7,750	10,667	12,002	13,889	63.4	79.2	30.2	15.7
Auditors	7	.....	.....	7,625	8,530	9,610	....	....	26.0	12.7
Other school employees:										
Secretarial and clerical employees:										
Secretaries to superintendents of schools	15	2,700	3,400	4,400	4,653	5,540	105.2	62.9	25.9	19.1
Clerks in principals' offices	16	1,519	1,480	2,619	3,118	3,382	122.6	128.5	29.1	8.5
Clerks in other administrative and supervisory offices	15	1,714	1,787	2,892	3,455	3,642	112.5	103.8	25.9	5.4
Nurses	10	1,924	1,926	3,240	3,913	4,319	124.5	124.2	33.3	10.4
Attendance officers	17	2,162	2,383	3,927	4,410	4,869	125.2	104.3	24.0	10.4

[a] Includes regular kindergarten, elementary-school, junior high-school, and high-school teachers.

[b] Owing to the irregularity in reporting these positions, the medians given are based on salaries for only the school systems reporting these positions for all years shown.

[c] Owing to changes in 1952-53 in the inquiry form used in collecting data on salaries of administrative and supervisory officers for urban school districts over 30,000 in population, only the few positions shown are comparable for the various years. (For further explanation, see page 62.)

Of particular note in this connection is the shift in position of Groups II and III. The 1954-55 median salary paid all regular classroom teachers in Group III districts slightly exceeds that paid in Group II districts.

The second major trend has been the closing of the gap which existed in 1930-31 between the median salaries of classroom teachers and of administrators. In Group I the median salaries of all classroom teachers advanced 112.2 percent between 1930-31 and 1954-55, while in this same period the median salaries of no supervising principals and superintendents in this group increased by more than 92.4 percent.

The reasons for this trend are not hard to find. Generally speaking, before World War II the salaries of classroom teachers were exceptionally low, especially in the elementary schools. As the teacher shortage and cost of

TABLE 3.—TRENDS IN SALARIES PAID EMPLOYEES IN URBAN SCHOOL DISTRICTS 100,000 TO 500,000 IN POPULATION, 1930-31 TO 1954-55 (GROUP II)

Type of school employee	Number of systems reporting each type of employee in 1954-55	Median salaries paid in					Percent of increase			
		1930-31	1940-41	1950-51	1952-53	1954-55	1930-31 1954-55	1940-41 1954-55	1950-51 1954-55	1952-53 1954-55
1	2	3	4	5	6	7	8	9	10	11
Classroom teachers:										
Kindergarten	74	$1,843	$1,879	$3,409	$3,699	$4,107	122.8%	118.6%	20.5%	11.0%
Elementary school	110	1,866	1,901	3,395	3,756	4,055	117.3	113.3	19.4	8.0
Atypical classes	96	2,069	2,086	3,802	4,309	4,593	122.0	120.2	20.8	6.6
Junior high school	84	2,124	2,087	3,719	4,023	4,311	103.0	106.6	15.9	7.2
High school	114	2,412	2,288	3,995	4,360	4,650	92.8	103.2	16.4	6.7
Junior college	20	.....	.....	4,722	5,405	5,989	....	....	26.8	10.8
Part-time or continuation school	42	2,315	1,977	3,868	4,389	4,703	103.2	137.9	21.6	7.2
Total all regular classroom teachers[a]	115	2,006	2,029	3,595	3,932	4,213	110.0	107.6	17.2	7.1
Teaching department heads, deans, and assistant principals:										
Junior high school	7	.....	.....	3,550	4,300	5,050	....	....	42.3	17.4
High school	39	.....	.....	4,633	5,185	5,589	....	....	20.6	7.8
Supervising deans, department heads, and assistant principals:										
Elementary school:										
Assistant principals	28	2,485	3,029	4,740	5,304	5,539	122.9	82.9	16.9	4.4
Junior high school:										
Deans and department heads	20	.....	.....	3,600	5,317	5,800	....	....	61.1	9.1
Assistant principals	55	3,083	2,975	5,071	5,733	6,204	101.2	108.5	22.3	8.2
High school:										
Deans	48	2,792	2,677	4,868	5,447	5,705	104.3	113.1	17.2	4.7
Department heads	29	.....	.....	5,203	5,627	5,925	....	....	13.9	5.3
Assistant principals	103	3,498	3,265	5,208	5,979	6,572	87.9	101.3	26.2	9.9
Junior college:										
Deans, department heads, and assistant principals	17	.....	.....	5,411	6,400	7,987	....	....	47.6	24.8
Principals:										
Teaching elementary school	44	2,330	2,088	3,990	4,274	4,278	83.6	104.9	7.2	0.1
Supervising elementary school	110	3,076	2,948	5,001	5,703	6,321	105.5	114.4	26.4	10.8
Junior high school	88	3,805	3,761	5,649	6,220	6,870	80.6	82.7	21.6	10.5
High school	113	4,547	4,183	6,291	6,892	7,373	62.2	76.3	17.2	7.0
Junior college	20	.....	.....	7,500	8,500	8,867	....	....	18.2	4.3
Part-time, continuation, or adult education school	25	3,500	3,600	6,125	6,840	7,475	113.6	107.6	22.0	9.3
Administrative and supervisory staff:[b]										
Superintendents of schools	115	9,071	8,237	11,909	13,000	14,000	54.3	70.0	17.6	7.7
Associate, assistant, or deput superintendents	91	5,180	5,324	7,944	9,000	9,600	85.3	80.3	20.8	6.7
Administrative assistants	40	.....	.....	6,286	6,995	7,803	....	....	24.1	11.6
Secretaries of boards of education	39	4,088	3,400	6,156	7,188	7,372	80.3	116.8	19.8	2.6
Business managers	57	5,083	4,700	7,000	7,506	8,340	64.1	77.4	19.1	11.1
Auditors	31	.....	.....	4,350	4,770	5,400	....	....	24.1	13.2
Other school employees:										
Secretarial and clerical employees:										
Secretaries to superintendents of schools	115	2,214	1,990	3,250	3,864	4,000	80.7	101.0	23.1	3.5
Clerks in principals' offices	114	1,049	1,021	2,053	2,307	2,577	145.7	152.4	25.5	11.7
Clerks in other administrative and supervisory offices	113	1,398	1,347	2,485	2,866	3,072	119.7	128.1	23.6	7.2
Nurses	88	1,628	1,701	3,132	3,672	4,021	147.0	136.4	28.4	9.5
Attendance officers	80	1,878	1,941	3,447	3,934	4,389	133.7	126.1	27.3	11.6

[a] Includes regular kindergarten, elementary-school, junior high-school, and high-school teachers.

[b] Owing to changes in 1952–53 in the inquiry form used in collecting data on salaries of administrative and supervisory officers for urban school districts over 30,000 in population, only the few positions shown are comparable for the various years. (For further explanation, see page 62.)

living increased during the war years, relatively large proportions of any additional funds were put into salaries of classroom teachers in order to hold the staffs. The increase in state aid for salary purposes and the tendency to raise the minimum salaries for the inexperienced teachers in order to attract properly trained persons to take care of the ever increasing enrolments are other factors that have pushed up the median salaries of classroom teachers so rapidly.

The third trend has been the relative reduction since 1930-31 of the gaps among the various types of classroom teachers. In Group I, for example, between 1930-31 and 1954-55 the median salary of high-school teachers increased 91.6 percent and that of elementary-school teachers, 112.3 percent.

TABLE 4.—TRENDS IN SALARIES PAID EMPLOYEES IN URBAN SCHOOL DISTRICTS 30,000 TO 100,000 IN POPULATION, 1930-31 TO 1954-55 (GROUP III)

Type of school employee	Number of systems reporting each type of employee in 1954-55	Median salaries paid in					Percent of increase			
		1930-31	1940-41	1950-51	1952-53	1954-55	1930-31 1954-55	1940-41 1954-55	1950-51 1954-55	1952-53 1954-55
1	2	3	4	5	6	7	8	9	10	11
Classroom teachers:										
Kindergarten	229	$1,609	$1,683	$3,216	$3,650	$4,041	151.1%	140.1%	25.7%	10.7%
Elementary school	333	1,609	1,608	3,231	3,682	4,028	150.3	150.5	24.7	9.4
Atypical classes	258	1,850	1,787	3,577	4,051	4,458	141.0	149.5	24.6	10.0
Junior high school	241	1,860	1,847	3,569	4,069	4,382	135.6	137.2	22.8	7.7
High school	349	2,111	2,039	3,782	4,292	4,686	122.0	129.8	23.9	9.2
Junior college	23	.....	.....	4,281	4,942	5,566	....	....	30.0	12.6
Part-time or continuation school	29	2,166	2,106	3,364	4,216	4,294	98.2	103.9	27.6	1.9
Total all regular classroom teachers[a]	368	1,760	1,763	3,407	3,898	4,242	141.0	140.6	24.5	8.8
Teaching department heads, deans, and assistant principals:										
Junior high school	39	.....	.....	4,286	4,834	5,200	....	....	21.3	7.6
High school	120	.....	.....	4,518	5,038	5,468	....	....	21.0	8.5
Supervising deans, department heads, and assistant principals:										
Elementary school:										
Assistant principals	49	2,756	2,067	4,367	4,900	5,625	104.1	172.1	28.8	14.8
Junior high school:										
Deans and department heads	43	.....	.....	4,392	5,054	5,431	.....	.....	23.7	7.5
Assistant principals	105	2,743	2,667	4,524	5,176	5,729	108.9	114.8	26.6	10.7
High school:										
Deans	143	2,523	2,460	4,889	5,506	5,915	134.4	140.4	21.0	7.4
Department heads	54	.....	.....	4,659	5,390	5,976	.....	.....	28.3	10.9
Assistant principals	248	3,053	3,093	5,093	5,726	6,259	105.0	102.4	22.9	9.3
Junior college:										
Deans, department heads, and assistant principals	16	.....	.....	5,611	6,100	6,950	....	....	23.9	13.9
Principals:										
Teaching elementary school	108	2,011	1,893	3,664	4,231	4,677	132.6	147.1	27.6	10.5
Supervising elementary school	328	2,646	2,470	4,629	5,316	5,897	122.9	138.7	27.4	10.9
Junior high school	239	3,353	3,175	5,257	5,848	6,500	93.9	104.7	23.6	11.1
High school	332	4,281	4,000	5,967	6,523	7,255	69.5	81.4	21.6	11.2
Junior college	29	.....	.....	6,292	7,350	8,400	....	....	33.5	14.3
Part-time, continuation, or adult education school	27	3,050	3,150	6,000	6,150	7,733	153.5	145.5	28.9	25.7
Administrative and supervisory staff:[b]										
Superintendents of schools	366	6,758	6,116	9,177	10,290	11,400	68.7	86.4	24.2	10.8
Associate, assistant, or deputy superintendents	181	4,587	4,333	6,929	7,500	8,500	85.3	96.2	22.7	13.3
Administrative assistants	67	.....	.....	6,038	6,500	7,325	....	....	21.3	12.7
Secretaries of boards of education	105	2,514	2,660	5,118	5,775	6,300	150.6	136.8	23.1	9.1
Business managers	179	3,690	3,457	5,896	6,600	7,400	100.5	114.1	25.5	12.1
Auditors	16	.....	.....	3,900	4,660	4,900	....	....	25.6	5.2
Other school employees:										
Secretarial and clerical employees:										
Secretaries to superintendents of schools	323	1,815	1,663	2,982	3,453	3,700	103.9	122.5	24.1	7.2
Clerks in principals' offices	317	1,046	986	2,120	2,407	2,591	147.7	162.8	22.2	7.6
Clerks in other administrative and supervisory offices	334	1,268	1,232	2,396	2,747	2,996	136.3	143.2	25.0	9.1
Nurses	268	1,651	1,629	3,063	3,581	3,994	141.9	145.2	30.4	11.5
Attendance officers	143	1,736	1,578	3,035	3,380	3,742	115.6	137.1	23.3	10.7

[a] Includes regular kindergarten, elementary-school, junior high-school, and high-school teachers.

[b] Owing to changes in 1952-53 in the inquiry form used in collecting data on salaries of administrative and supervisory officers for urban school districts over 30,000 in population, only the few positions shown are comparable for the various years. (For further explanation, see page 62.)

TABLE 5.—MEDIAN SALARIES PAID ADMINISTRATIVE AND SUPERVISORY STAFF IN URBAN SCHOOL DISTRICTS OVER 30,000 IN POPULATION

Types of positions	Group I[a]			Group II[a]			Group III[a]		
	Number of systems reporting each type of position	Total number of individuals reported	Median salaries paid	Number of systems reporting each type of position	Total number of positions reported	Median salaries paid	Number of systems reporting each type of position	Total number of positions reported	Median salaries paid
1	2	3	4	5	6	7	8	9	10
General Administration:									
Superintendents of schools	18	18	$20,750	115	115	$14,000	366	366	$11,400
Deputy superintendents	8	9	12,000	12	16	11,500	13	15	10,278
Associate superintendents	8	36	13,950	9	12	10,500	...	...	.....
Assistant superintendents	16	106	13,486	88	200	9,337	175	215	8,500
Administrative assistants to superintendents	11	14	8,439	40	42	7,803	67	76	7,325
Secretaries of boards of education	13	14	10,294	39	40	7,372	105	105	6,300
Business Administration:									
Business managers	8	8	13,889	57	57	8,340	179	179	7,400
Assistant business managers	7	8	9,658	22	23	6,250	28	29	5,400
Purchasing officers	13	38	7,765	64	69	5,800	62	63	5,400
Auditors	7	7	9,610	31	39	5,400	16	16	4,900
Accountants	13	56	6,952	56	83	5,100	82	94	4,450
Heads, planning and construction	7	7	11,904	32	32	7,575	16	16	6,339
Heads, operation and maintenance	9	9	9,787	78	80	6,468	223	228	5,800
Educational divisions:									
Directors and supervisors of:									
Elementary education	13	70	7,600	88	199	6,500	191	260	6,250
Secondary education	10	26	7,800	45	69	7,100	44	53	6,950
Adult education	11	17	9,300	45	47	6,650	62	62	6,550
Veteran education	5	6	7,450	10	15	5,720	11	11	5,592
Special education	14	62	8,584	58	67	6,600	68	71	6,000
Assistant directors and assistant supervisors of:[b]									
Elementary education	7	63	8,570	24	62	6,225	17	28	5,950
Secondary education	6	38	8,570	4	8	7,125	...	...	.....
Adult education	6	16	7,597	7	11	6,730	7	8	5,944
Special education	6	59	7,450	8	9	6,750	4	9	4,700
Special subjects:									
Directors and supervisors of:									
Vocational education	14	39	9,300	63	73	7,002	125	137	6,250
Physical and health education	17	65	7,260	102	143	6,793	225	275	5,950
Art	15	42	7,260	80	87	6,550	194	203	5,500
Music	16	62	7,260	97	133	6,550	265	378	5,514
Manual or industrial arts	12	41	7,260	46	51	6,934	58	59	5,840
Home economics	15	25	7,260	62	62	6,490	80	85	5,500
Assistant directors and assistant supervisors of:[b]									
Vocational education	4	14	6,336	16	32	6,848	13	17	5,600
Physical and health education	9	24	6,528	37	63	6,200	30	39	5,275
Art	5	27	6,350	21	33	5,769	16	17	4,550
Music	6	52	5,965	26	47	5,885	50	74	4,590
Manual or industrial arts	4	9	6,528	...	...	.....	...	...	.....
Home economics	4	6	7,314	6	8	5,850	3	7	3,515
Special services:									
Directors and supervisors of:									
Research, tests, etc.	14	24	8,741	61	70	6,913	89	103	6,050
Pupil personnel	8	32	7,250	34	40	7,583	53	67	5,900
Attendance	12	25	9,436	59	74	6,073	124	132	5,200
Curriculum	10	14	9,683	35	37	7,645	60	66	7,000
Employee personnel	11	18	9,369	26	26	7,760	7	7	7,300
Audio-visual education	17	27	7,800	82	103	6,620	131	138	5,635
School library services	10	20	7,260	40	55	6,050	75	96	5,345
Health services	10	30	7,252	42	52	7,140	71	74	5,500
School lunch services	15	28	7,240	80	93	5,700	165	169	4,550
Transportation	6	7	7,550	26	27	5,460	39	40	5,092
Assistant directors and assistant supervisors of:[b]									
Research, tests, etc.	12	51	5,952	14	22	5,370	12	12	5,200
Pupil personnel	5	16	8,570	9	12	5,648	6	8	5,350
Attendance	4	48	7,625	15	26	5,720	5	5	3,600
Curriculum	6	26	9,238	6	32	5,862	8	8	6,423
Employee personnel	9	30	8,829	8	9	6,000	...	...	.....
Audio-visual education	12	48	5,800	16	24	5,975	6	7	5,300
School library services	4	23	6,804	7	9	5,022	10	20	4,829
Health services	7	56	9,350	10	12	6,233	...	...	.....
School lunch services	11	36	5,500	15	21	4,301	7	7	3,640
Transportation	2	7	4,745	5	7	4,600	...	...	.....

[a] For population ranges, see Table 1, page 61.

[b] The median salaries shown for assistant directors and assistant supervisors in many instances are higher than those shown for directors and supervisors. This is due to the fact that the positions of assistant directors and assistant supervisors are found in a relatively few school districts, usually those paying higher salaries. In using the salaries shown, the number of districts as well as the number of individuals reported for each type of position should be kept in mind.

TABLE 6.—TRENDS IN SALARIES PAID EMPLOYEES IN URBAN SCHOOL DISTRICTS 10,000 TO 30,000 IN POPULATION, 1930-31 TO 1954-55 (GROUP IV)

Type of school employee	Number of systems reporting each type of employee in 1954-55	Median salaries paid in					Percent of increase			
		1930-31	1940-41	1950-51	1952-53	1954-55	1930-31 1954-55	1940-41 1954-55	1950-51 1954-55	1952-53 1954-55
1	2	3	4	5	6	7	8	9	10	11
Classroom teachers:										
Elementary school[a]	751	$1,428	$1,432	$2,998	$3,437	$3,857	170.1%	169.3%	28.7%	12.2%
Junior high school	373	1,619	1,597	3,204	3,695	4,103	153.4	156.9	28.1	11.0
High school	716	1,876	1,803	3,490	3,954	4,385	133.7	143.2	25.6	10.9
Junior college	27	....	.....	4,104	4,413	4,835	....	....	17.8	9.6
Part-time or continuation school	24	1,864	1,660	3,665	4,358	4,388	135.4	164.3	19.7	0.7
Total all regular classroom teachers[b]	799	1,552	1,551	3,150	3,615	4,034	159.9	160.1	28.1	11.6
Supervising assistant principals, deans, and department heads:										
Junior high school	64	.....	.....	4,600	4,813	5,436	....	....	18.2	12.9
High school	291	.....	.....	4,729	5,116	5,717	....	....	20.9	11.7
Junior college	6	.....	.....	5,200	4,650	6,110	....	....	17.3	31.2
Principals:										
Elementary school:										
Teaching	345	1,742	1,686	3,357	3,936	4,357	150.1	158.4	29.8	10.7
Supervising	640	2,349	2,220	4,365	4,900	5,479	133.2	146.8	25.5	11.8
Total	737	1,900	1,848	3,828	4,482	5,066	166.6	174.1	32.3	13.0
Junior high school:										
Teaching	17	.....	.....	2,894	4,033	4,183	....	....	44.5	3.7
Supervising	346	.....	.....	4,652	5,272	5,888	....	....	26.6	11.7
Total	358	2,763	2,598	4,579	5,221	5,824	110.8	124.2	27.2	11.5
High school:										
Teaching	26	.....	.....	4,100	4,450	4,775	....	....	16.5	7.3
Supervising	679	.....	.....	5,154	5,749	6,366	....	....	23.5	10.7
Total	686	3,613	3,303	5,123	5,710	6,328	75.1	91.6	23.5	10.8
Junior college presidents, principals or chief administrators	28	.....	.....	5,900	6,067	6,560	....	....	11.2	8.1
Administrative and supervisory staff:										
Superintendents of schools	795	5,149	4,693	7,375	8,053	9,033	75.4	92.5	22.5	12.2
Assistant superintendents	156	2,950	3,125	6,097	6,545	7,286	147.0	133.2	19.5	11.3
Secretaries of boards of education	233	1,250	1,288	3,020	3,533	4,208	236.6	226.7	39.3	19.1
Business managers	175	3,200	2,625	4,582	5,217	6,028	88.4	129.6	31.6	15.5
Superintendents of buildings and grounds	377	2,175	2,108	3,930	4,379	4,832	122.2	129.2	23.0	10.3
Directors and supervisors of:										
Educational divisions:										
Elementary education	257	.....	.....	4,513	4,873	5,556	....	....	23.1	14.0
Secondary education	21	.....	.....	.....	5,600	6,150	....	....	....	9.8
Adult education	52	.....	.....	5,250	5,500	6,025	....	....	14.8	9.5
Special education	66	.....	.....	.....	4,000	4,067	....	....	....	1.7
Special subjects:										
Vocational education	77	3,017	2,517	4,446	5,005	5,486	81.8	118.0	23.4	9.6
Physical and health education	198	2,009	2,044	4,194	4,656	5,211	159.4	154.9	24.2	11.9
Art	199	1,826	1,824	3,583	4,108	4,485	145.6	145.9	25.2	9.2
Music	312	1,943	1,895	3,744	4,243	4,728	143.3	149.5	26.3	11.4
Manual or industrial arts	47	2,194	2,040	3,750	4,180	5,050	130.2	147.5	34.7	20.8
Home economics	45	1,718	1,675	3,325	3,963	4,430	157.9	164.5	33.2	11.8
Special services:										
Research, tests, etc.	49	2,150	2,250	4,144	4,400	5,567	158.9	147.4	34.3	26.5
Guidance	211	.....	.....	4,233	4,763	5,087	....	....	20.2	6.8
Pupil personnel	31	.....	.....	.....	4,650	5,050	....	....	....	8.6
Curriculum	62	.....	.....	.....	5,433	6,150	....	....	....	13.2
Audio-visual education	75	.....	.....	.....	4,643	5,200	....	....	....	12.0
School library services	161	.....	.....	3,508	4,073	4,694	....	....	33.8	15.2
Health services	27	.....	.....	.....	3,950	5,250	....	....	....	32.9
School lunch services	197	.....	.....	3,133	3,407	3,892	....	....	24.2	14.2
Transportation	76	.....	.....	.....	3,983	4,425	....	....	....	11.1
Other school employees:										
Secretarial and clerical employees:										
Secretaries to superintendents of schools	664	1,453	1,369	2,666	2,991	3,349	130.5	144.6	25.6	12.0
Clerks in principals' offices	681	966	889	1,883	2,169	2,398	148.2	169.7	27.3	10.6
Clerks in other administrative and supervisory offices	546	1,113	1,061	2,202	2,473	2,762	148.2	160.3	25.4	11.7
Janitors	745	1,360	1,324	2,512	2,915	3,238	138.1	144.6	28.9	11.1
Nurses	568	1,762	1,599	3,042	3,504	3,827	117.2	139.3	25.8	9.2
Attendance officers	254	1,195	1,236	2,828	3,203	3,660	206.3	196.1	29.4	14.3

[a] Includes kindergarten teachers.
[b] Includes regular kindergarten, elementary-school, junior high-school, and high-school teachers.

Similarly it is generally true for the other urban groups (see pages 65, 66, 68, 69, and 70) that the relative differences among the median salaries of the various types of classroom teachers are substantially less this year than in 1930-31. Undoubtedly the main reason for this change has been the widespread adoption of the single-salary schedule idea.

TABLE 7.—TRENDS IN SALARIES PAID EMPLOYEES IN URBAN SCHOOL DISTRICTS 5,000 TO 10,000 IN POPULATION, 1930-31 TO 1954-55 (GROUP V)

Type of school employee	Number of systems reporting each type of employee in 1954-55	Median salaries paid in					Percent of increase			
		1930-31	1940-41	1950-51	1952-53	1954-55	1930-31 1954-55	1940-41 1954-55	1950-51 1954-55	1952-53 1954-55
1	2	3	4	5	6	7	8	9	10	11
Classroom teachers:										
Elementary school[a]	698	$1,303	$1,289	$2,831	$3,190	$3,591	175.6%	178.6%	26.8%	12.6%
Junior high school	228	1,494	1,452	3,005	3,436	3,751	151.1	158.3	24.8	9.2
High school	630	1,692	1,626	3,220	3,620	4,021	137.6	147.3	24.9	11.1
Junior college	11	.....	.....	3,632	3,700	3,875	....	.....	6.7	4.7
Part-time or continuation school	10	1,454	850	3,790	4,213	4,450	206.1	423.5	17.4	5.6
Total all regular classroom teachers[b]	726	1,434	1,424	2,985	3,361	3,745	161.2	163.0	25.5	11.4
Supervising assistant principals, deans, and department heads:										
High school	80	.....	.....	4,464	4,880	5,211	....	....	16.7	6.8
Principals:										
Elementary school:										
Teaching	309	1,583	1,494	3,210	3,586	3,996	152.4	167.5	24.5	11.4
Supervising	463	2,239	2,081	4,147	4,564	5,175	131.1	148.7	24.8	13.4
Total	631	1,653	1,578	3,503	4,007	4,538	174.5	187.6	29.5	13.3
Junior high school:										
Teaching	28	.....	.....	3,350	3,957	4,290	....	....	28.1	8.4
Supervising	155	.....	.....	4,267	4,607	5,262	....	.....	23.3	14.2
Total	182	2,184	1,992	4,013	4,365	5,025	130.1	152.3	25.2	15.1
High school:										
Teaching	35	.....	.....	3,433	4,000	4,200	....	....	22.3	5.0
Supervising	565	.....	.....	4,591	5,120	5,607	....	....	22.1	9.5
Total	583	2,825	2,596	4,548	5,082	5,544	96.2	113.6	21.9	9.1
Junior college presidents, principals, or chief administrators	9	.....	.....	4,450	4,950	5,300	....	....	19.1	7.1
Administrative and supervisory staff:										
Superintendents of schools	732	4,188	3,780	6,345	6,795	7,557	80.4	99.9	19.1	11.2
Assistant superintendents	46	3,300	2,750	5,417	5,575	6,625	100.8	140.9	22.3	18.8
Secretaries of boards of education	192	558	656	2,000	2,436	2,771	396.6	322.4	38.6	13.8
Business managers	67	2,500	2,150	4,178	4,540	5,136	105.4	138.9	22.9	13.1
Superintendents of buildings and grounds	135	1,900	2,117	3,626	3,781	4,192	120.6	98.0	15.6	10.9
Directors and supervisors of:										
Educational divisions:										
Elementary education	109	.....	.....	4,150	4,522	5,055	....	....	21.8	11.8
Secondary education	22	.....	.....	.....	4,933	5,350	....	....	.....	8.5
Special education	34	.....	.....	.....	4,033	4,150	....	....	....	2.9
Special subjects:										
Vocational education	25	2,350	2,225	4,171	4,350	4,858	106.7	118.3	16.5	11.7
Physical and health education	71	1,884	1,791	3,700	3,940	4,350	130.9	142.9	17.6	10.4
Art	72	1,688	1,595	3,067	3,440	3,850	128.1	141.4	25.5	11.9
Music	136	1,729	1,638	3,347	3,806	4,160	140.6	154.0	24.3	9.3
Manual or industrial arts	22	2,041	1,791	3,433	3,900	4,000	96.0	123.3	16.5	2.6
Home economics	29	1,613	1,494	2,900	3,150	3,625	124.7	142.6	25.0	15.1
Special services:										
Guidance	98	.....	.....	3,960	4,050	4,707	....	....	18.9	16.2
Pupil personnel	11	.....	.....	.....	4,300	4,450	....	....	.....	3.5
Curriculum	17	.....	.....	.....	5,450	5,650	....	....	....	3.7
Audio-visual education	13	.....	.....	.....	4,250	4,750	....	....	....	11.8
School library services	100	.....	.....	3,300	3,800	4,031	....	....	22.2	6.1
School lunch services	66	.....	.....	3,100	3,117	3,300	....	....	6.5	5.9
Transportation	48	.....	.....	.....	3,483	3,692	....	....	....	6.0
Other school employees:										
Secretarial and clerical employees:										
Secretaries to superintendents of schools	542	1,192	1,142	2,341	2,555	2,867	140.5	151.1	22.5	12.2
Clerks in principals' offices	453	800	796	1,825	2,080	2,257	182.1	183.5	23.7	8.5
Clerks in other administrative and supervisory offices	246	1,057	896	2,050	2,356	2,600	146.0	190.2	26.8	10.4
Janitors	624	1,275	1,215	2,401	2,740	3,044	138.7	150.5	26.8	11.1
Nurses	363	1,641	1,525	2,850	3,302	3,593	119.0	135.6	26.1	8.8
Attendance officers	58	.....	.....	2,433	2,721	2,850	....	....	17.1	4.7

[a] Includes kindergarten teachers.
[b] Includes regular kindergarten, elementary-school, junior high-school, and high-school teachers.

Principals—To a considerable extent the trends in the medians of classroom teachers' salaries are also present in the medians of principals' salaries. Briefly, they are that, in the past 25 years, (a) the percent of change has generally been greater in the small cities than in the largest cities and (b) the percent of change has generally been greater in the elementary schools than in the high schools.

These trends can be illustrated by specific types. Supervising elementary-school principals' median salaries, between 1930-31 and 1954-55, increased by the following percents: Group I, 92.4 percent; Group II, 105.5 percent; Group III, 122.9 percent; Group IV, 133.2 percent; Group V, 131.1 percent; and Group VI, 119.4 percent. The respective percents for high-school principals were: 70.8, 62.2, 69.5, 75.1, 96.2, and 111.9. From the population angle it will be noted that the foregoing percents are generally larger in the small urban districts than in the largest urban districts.

Superintendents of schools—Trends in the median salaries of superintendents of schools are less clear than for the preceding groups because of the relatively few persons involved and the turnover in the past 25 years.

Between 1930-31 and 1954-55 the median salaries of superintendents of schools advanced by the following percents: Group I, 37.4 percent; Group II, 54.3 percent; Group III, 68.7 percent; Group IV, 75.4 percent; Group V, 80.4 percent; and Group VI, 85.9 percent.

TABLE 8.—TRENDS IN SALARIES PAID EMPLOYEES IN URBAN SCHOOL DISTRICTS 2,500 TO 5,000 IN POPULATION, 1930-31 TO 1954-55 (GROUP VI)

Type of school employee	Number of systems reporting each type of employee in 1954-55	Median salaries paid in					Percent of increase			
		1930-31	1940-41	1950-51	1952-53	1954-55	1930-31 1954-55	1940-41 1954-55	1950-51 1954-55	1952-53 1954-55
1	2	3	4	5	6	7	8	9	10	11
Classroom teachers:										
Elementary school[a]	432	$1,162	$1,149	$2,683	$3,118	$3,465	198.3%	201.7%	29.2%	11.1%
Junior high school	119	1,360	1,301	2,903	3,233	3,579	163.2	175.1	23.3	10.7
High school	343	1,547	1,428	3,067	3,498	3,848	148.7	169.5	25.5	10.0
Part-time or continuation school	8	.....	.....	3,693	4,375	4,200	.....	.....	13.7	−4.0
Total all regular classroom teachers[b]	440	1,307	1,273	2,831	3,275	3,613	176.5	183.9	27.7	10.4
Supervising assistant principals, deans, and department heads:										
High school	17	.....	.....	4,350	4,700	4,767	.....	.....	9.6	1.4
Principals:										
Elementary school:										
Teaching	160	1,409	1,350	3,001	3,483	3,919	178.1	190.3	30.6	12.5
Supervising	204	2,175	1,878	4,053	4,388	4,773	119.4	154.2	17.8	8.8
Total	327	1,459	1,410	3,220	3,871	4,286	194.0	204.2	33.2	10.7
Junior high school:										
Teaching	22	.....	.....	3,400	3,725	4,150	.....	.....	22.1	11.4
Supervising	41	.....	.....	3,775	4,113	4,650	.....	.....	23.2	13.1
Total	63	1,775	1,596	3,550	3,917	4,480	152.4	180.7	26.2	14.4
High school:										
Teaching	41	.....	.....	3,682	4,050	4,640	.....	.....	26.0	14.6
Supervising	265	.....	.....	4,283	4,690	5,171	.....	.....	20.7	10.3
Total	296	2,403	2,136	4,177	4,598	5,091	111.9	138.3	21.9	10.7
Administrative and supervisory staff:										
Superintendents of schools	435	3,565	3,219	5,526	6,043	6,623	85.9	105.9	19.9	9.6
Secretaries of boards of education	96	.....	.....	1,285	1,838	2,300	.....	.....	79.0	25.1
Business managers	12	.....	1,950	4,200	4,200	4,750	.....	143.6	13.1	13.1
Superintendents of buildings and grounds	25	2,150	1,570	3,500	4,025	4,225	96.5	169.1	20.7	5.0
Directors and supervisors of:										
Elementary education	19	.....	.....	4,260	4,300	4,750	.....	.....	9.2	8.1
Music	21	1,439	1,428	3,480	4,050	4,150	188.4	190.6	19.3	2.5
Guidance	13	.....	.....	.....	.....	4,650	.....	.....	.....	.....
Other school employees:										
Secretarial and clerical employees:										
Secretaries to superintendents of schools	278	885	878	2,000	2,246	2,475	179.9	182.1	23.9	10.2
Clerks in principals' offices	171	781	787	1,730	2,141	2,179	179.0	176.9	26.0	1.8
Clerks in other administrative and supervisory offices	70	764	825	2,050	2,139	2,408	215.2	191.9	17.5	12.6
Janitors	357	1,190	1,180	2,403	2,786	2,973	149.9	152.0	23.8	6.7
Nurses	128	1,546	1,296	2,686	3,053	3,404	120.2	162.7	26.7	11.5
Attendance officers	17	.....	.....	2,525	2,125	3,125	.....	.....	23.8	47.1

[a]Includes kindergarten teachers.
[b]Includes regular kindergarten, elementary-school, junior high-school, and high-school teachers.

Too much reliance cannot be placed upon the specific amount of these percents, but in general the percent of change for superintendents has been less than for classroom teachers and principals.

Secretaries of boards of education—One spectacular advance in salaries between 1930-31 and 1954-55 has been in the median salaries of secretaries of boards of education. The level of salary in 1930-31, particularly in the urban school districts under 100,000 in population, suggests that at that time the position was often held by a school secretary and that possibly, because of increased importance, the position now requires new levels of preparation and experience. Between 1930-31 and 1954-55 the percent of change in median salaries ranged from 65 percent in Group I to 397 percent in Group V.

Relative Value of Salaries [2]

Salaries have value only in terms of what they will buy—*purchasing power*—and to the extent that the things they can buy will meet individual needs. The needs are determined by the *level or standard of living* that the earner tries to maintain. This level is determined by community expectations and by educational and occupational background.

Purchasing power—Purchasing power is measured by indexes that show the change in prices from one specified date to another. Most commonly used is the Consumer Price Index of the U. S. Bureau of Labor Statistics. The Index is now based on 1947-1949 as 100.0; in January 1955 it was 114.3. Before 1953 it was based on 1935-1939 as 100.0; the Index on this basis for January 1955 was 191.1.

The purchasing power of a current salary can be measured by the following formula: Salary, divided by Index, times 100, equals Purchasing Power (in dollars of the period on which the Index is based). Applying this formula to the 1954-55 median for Group III classroom teachers, $4242, gives a purchasing power in 1935-1939 dollars of $2220 ($4242 $\div$ 191.1 $\times$ 100 = $2220).

The federal income tax, not applied to teachers' salaries before 1939, makes a further cut in purchasing power. At 1954 rates, a single teacher with one dependent, at a salary of $4242, would pay $533. The remainder would be worth only $1941 in 1935-1939 dollars. State income taxes, much increased in recent years, take a further bite in many states.

Another factor reduces the value of apparent increases in teachers' salaries. From 1939 to 1953 (the latest year available for comparison) the average employed person's earnings rose 184 percent while earnings of all public-school teachers increased only 155 percent. The median salary of Group III city teachers increased only 123 percent in this period.

Level of living—By comparing incomes of occupational groups, it is possible to determine to some extent the relative levels of living. Such comparisons show that teachers as a group are on about the same level as the *average* wage or salary worker in the United States but far below the average worker in other professional occupations. In general, the apparent increases in school salaries in the two past decades have not been enough to maintain teachers at even the relatively low economic level attained prior to World War II.

[2] Economic indexes referred to in this section are derived from releases of federal agencies. See: National Education Association, Research Division. *Economic Status of Teachers in 1954-55.* Special Memo. Washington, D. C.: the Association, December 1954. 26 p.

III. The Range and Distribution of Salaries in 1954-55

The median salaries reported in the preceding section summarize as well as is possible in any single figure the general status of urban teachers' salaries. It is important, however, to know how the salaries are distributed above and below the median figure. Tables 9 and 10 present this information for the main groups of teachers in urban school districts.

Tables 11 and 12 show the distribution of salaries for the main groups of principals and Tables 13 and 14 give similar data for certain administrative and supervisory officers.

Table 15 presents the distribution of salaries paid to secretaries and clerical employees, while Table 16 shows similar information for attendance officers, nurses, and janitors.

TABLE 9.—DISTRIBUTION OF SALARIES PAID TEACHERS IN URBAN SCHOOL DISTRICTS OVER 30,000 IN POPULATION IN 1954-55

Salary groups	Elementary-school teachers			Junior high-school teachers			High-school teachers		
	Group I[a]	Group II[a]	Group III[a]	Group I	Group II	Group III	Group I	Group II	Group III
1	2	3	4	5	6	7	8	9	10
$8,100–8,599	.....	.....	6	.....	.....	1	.....	1	11
7,600–8,099	.....	.....	21	.....	.....	14	.....	2	37
7,100–7,599	63	63	40	142	28	42	555	145	124
6,600–7,099	9,450	675	97	2,114	161	144	6,249	545	550
6,400–6,599	322	61	137	86	113	195	769	459	487
6,200–6,399	985	272	360	264	199	177	2,211	580	712
6,000–6,199	2,714	473	496	437	441	293	3,189	967	799
5,800–5,999	2,186	979	601	1,035	395	337	2,875	1,540	946
5,600–5,799	2,851	2,495	1,377	603	632	532	2,425	2,154	1,309
5,500–5,599	5,057	832	744	545	233	341	1,034	608	717
5,400–5,499	2,074	1,093	910	365	395	384	898	1,046	810
5,300–5,399	1,370	1,417	1,145	143	316	365	465	1,056	891
5,200–5,299	3,497	2,155	945	500	653	450	1,068	1,126	864
5,100–5,199	860	1,238	1,461	90	530	649	185	1,132	1,131
5,000–5,099	2,498	2,308	1,283	560	671	551	962	1,313	1,012
4,900–4,999	1,465	1,851	1,542	421	341	681	182	802	1,041
4,800–4,899	1,472	2,415	1,684	398	848	619	648	1,420	1,161
4,700–4,799	1,021	1,869	1,686	205	619	737	431	985	1,108
4,600–4,699	1,933	2,213	1,886	550	522	716	527	800	1,032
4,500–4,599	961	1,873	2,386	176	573	670	502	869	1,250
4,400–4,499	2,859	1,864	2,087	560	585	713	1,378	847	1,003
4,300–4,399	505	3,909	2,198	163	718	633	137	1,332	932
4,200–4,299	1,991	2,286	2,329	441	652	715	521	981	999
4,100–4,199	1,500	3,314	2,257	248	776	674	428	1,224	788
4,000–4,099	2,398	2,572	2,906	2,043	550	628	891	1,030	980
3,900–3,999	2,913	2,448	2,632	243	658	740	258	974	786
3,800–3,899	2,031	3,007	2,411	369	691	642	249	1,142	750
3,700–3,799	727	2,877	2,846	112	555	637	72	813	689
3,600–3,699	2,311	3,508	2,643	351	735	662	188	1,049	694
3,500–3,599	499	2,945	2,614	159	746	554	102	907	633
3,400–3,499	1,902	4,073	2,672	423	762	584	184	955	596
3,300–3,399	364	2,937	2,093	88	588	421	48	829	496
3,200–3,299	861	2,265	2,111	257	462	371	85	448	394
3,100–3,199	332	1,880	1,807	129	329	333	52	518	372
3,000–3,099	618	1,880	1,750	126	352	294	73	474	397
2,900–2,999	14	1,725	997	3	311	206	3	399	280
2,800–2,899	51	1,371	1,219	2	195	224	1	271	267
2,700–2,799	.....	1,144	942	.....	169	171	.....	254	214
2,600–2,699	26	1,025	688	.....	103	132	1	245	161
2,500–2,599	.....	816	433	.....	50	94	.....	140	104
2,400–2,499	6	401	307	.....	68	53	1	80	60
2,300–2,399	.....	330	224	.....	46	34	.....	37	43
2,200–2,299	.....	139	200	.....	4	15	.....	5	47
2,100–2,199	.....	103	76	.....	4	12	.....	16	10
2,000–2,099	.....	62	79	.....	3	9	.....	9	9
Below $2,000	.....	467	205	.....	11	4	.....	29	8
Total	62,687	73,630	59,533	14,351	17,793	17,453	29,847	32,558	27,704
Median	$5,110	$4,055	$4,028	$4,931	$4,311	$4,382	$5,864	$4,650	$4,686
Arithmetic mean	$5,093	$4,125	$4,099	$5,046	$4,376	$4,408	$5,713	$4,638	$4,686

[a] For population ranges, see Table 1, page 61.

The tables in this section bring out clearly the relative position of the median salaries in the different population groups and the extent to which the distributions themselves overlap. They show that, altho for the most part the median salary of various groups of employees increases with the population of the district in which the person is employed, there is a considerable amount of overlapping in the distribution of the salaries. In all types of positions there are many individuals in the larger districts receiving lower salaries than some persons in like positions in the smaller districts.

Tables 9 to 16 also give the total number of the various employees reported by the urban school districts covered in this survey and the median and arithmetic mean for each type. For trends in salary scheduling see the section beginning on page 82.

TABLE 10.—DISTRIBUTION OF SALARIES PAID TEACHERS IN URBAN SCHOOL DISTRICTS UNDER 30,000 IN POPULATION IN 1954-55

Salary groups	Elementary-school and kindergarten teachers			Junior high-school teachers			High-school teachers		
	Group IV[a]	Group V[a]	Group VI[a]	Group IV	Group V	Group VI	Group IV	Group V	Group VI
1	2	3	4	5	6	7	8	9	10
$6,500 and over	393	51	3	64	3	....	649	94	....
6,300–6,499	163	35	13	44	2	....	277	62	1
6,100–6,299	227	49	6	40	6	....	351	94	7
5,900–6,099	301	49	13	69	12	2	458	110	21
5,700–5,899	404	95	24	115	9	4	642	153	35
5,600–5,699	292	41	4	84	9	....	440	95	22
5,500–5,599	366	74	16	124	1	....	518	85	22
5,400–5,499	486	87	34	117	8	....	528	137	52
5,300–5,399	463	90	8	125	11	....	558	159	46
5,200–5,299	584	132	21	180	15	3	677	224	68
5,100–5,199	778	140	61	179	33	5	837	219	73
5,000–5,099	861	187	36	239	35	7	896	330	95
4,900–4,999	958	230	61	204	34	3	905	357	97
4,800–4,899	1,107	317	81	289	54	9	1,038	431	127
4,700–4,799	1,288	350	85	353	42	12	1,034	466	121
4,600–4,699	1,503	493	108	363	70	5	1,069	593	171
4,500–4,599	1,580	582	130	389	70	14	1,104	582	200
4,400–4,499	1,863	768	213	443	76	15	1,296	690	230
4,300–4,399	1,896	774	170	402	103	17	1,081	624	241
4,200–4,299	2,162	929	271	429	121	36	1,097	686	254
4,100–4,199	2,436	766	288	474	109	26	1,208	572	270
4,000–4,099	2,438	1,015	399	466	135	38	1,143	794	307
3,900–3,999	2,336	1,004	330	431	139	51	932	585	282
3,800–3,899	2,597	1,110	483	460	135	56	955	789	344
3,700–3,799	2,451	1,188	427	375	144	53	873	641	300
3,600–3,699	2,595	1,243	478	458	178	54	932	731	369
3,500–3,599	2,665	1,415	515	357	153	67	777	616	326
3,400–3,499	2,880	1,590	526	418	151	63	815	756	330
3,300–3,399	2,261	1,133	539	323	138	47	639	531	284
3,200–3,299	2,104	1,478	608	284	158	89	572	563	281
3,100–3,199	1,864	1,112	474	228	103	32	476	343	210
3,000–3,099	1,801	1,219	540	252	104	30	557	443	195
2,900–2,999	1,244	687	295	139	58	21	301	230	79
2,800–2,899	1,242	750	360	157	56	38	351	269	93
2,700–2,799	899	559	331	136	32	14	245	138	65
2,600–2,699	604	430	243	57	31	13	166	166	33
2,500–2,599	568	396	212	36	13	5	151	103	44
2,400–2,499	467	357	186	50	17	6	141	109	72
2,300–2,399	211	249	112	26	12	8	81	69	30
2,200–2,299	231	185	45	22	13	1	63	74	9
2,100–2,199	127	119	56	12	3	1	18	12	6
2,000–2,099	94	107	37	6	4	1	12	25	13
1,900–1,999	90	88	28	1	....	2	5	4	10
1,800–1,899	59	73	13	2	3	....	2	17	3
1,600–1,799	37	40	18	2	....	....	1	4	6
Below $1,600	33	73	28	....	1	....	2	1	....
Total	52,009	23,859	8,929	9,424	2,604	848	26,873	14,776	5,844
Median	$3,857	$3,591	$3,465	$4,103	$3,751	$3,579	$4,385	$4,021	$3,848
Arithmetic mean	$3,929	$3,655	$3,514	$4,141	$3,820	$3,628	$4,408	$4,060	$3,902

[a] For population ranges, see Table 1, page 61.

TABLE 11.—DISTRIBUTION OF SALARIES PAID PRINCIPALS IN URBAN SCHOOL DISTRICTS OVER 30,000 IN POPULATION IN 1954-55

Salary groups	Elementary-school principals					Junior high-school principals			High-school principals		
	Teaching[a]		Supervising								
	Group II[b]	Group III[b]	Group I[b]	Group II	Group III	Group I	Group II	Group III	Group I	Group II	Group III
1	2	3	4	5	6	7	8	9	10	11	12
$13,000–13,999	.....	.....	.....	.....	.....	.....	.....	.....	72	.....	.....
12,000–12,999	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	1
11,000–11,999	.....	.....	2	.....	.....	10	.....	1	13	7	2
10,000–10,999	.....	.....	11	17	.....	19	7	1	96	17	9
9,500– 9,999	.....	.....	360	4	1	88	11	4	39	21	18
9,000– 9,499	.....	.....	72	13	3	4	17	14	50	26	34
8,800– 8,999	.....	.....	17	17	9	13	15	7	14	15	15
8,600– 8,799	3	.....	1	30	16	8	6	8	14	24	20
8,400– 8,599	.....	.....	415	49	22	32	18	9	12	31	19
8,200– 8,399	3	.....	94	69	31	15	12	12	16	25	15
8,000– 8,199	1	.....	279	52	68	11	7	9	26	38	18
7,800– 7,999	.....	.....	382	47	40	14	21	10	16	41	26
7,600– 7,799	.....	1	137	109	57	4	18	14	8	36	24
7,400– 7,599	.....	1	170	146	83	20	30	20	8	32	44
7,200– 7,399	.....	.....	181	168	87	11	33	39	10	49	31
7,000– 7,199	.....	.....	144	191	137	6	51	45	9	40	34
6,800– 6,999	.....	1	76	313	142	13	44	28	9	30	32
6,600– 6,799	1	1	124	282	188	8	41	49	2	24	22
6,400– 6,599	7	3	65	259	181	3	38	49	1	28	32
6,200– 6,399	7	4	37	247	236	3	22	47	.....	24	24
6,000– 6,199	8	8	39	270	259	1	32	47	.....	22	25
5,800– 5,999	10	8	18	254	244	.....	15	43	.....	18	14
5,600– 5,799	12	11	33	222	279	.....	23	34	1	8	11
5,400– 5,599	12	30	7	170	220	.....	16	17	.....	21	9
5,200– 5,399	11	42	3	186	235	.....	13	18	.....	16	6
5,000– 5,199	17	65	.....	160	185	.....	29	14	.....	8	9
4,800– 4,999	21	47	.....	138	141	.....	5	12	.....	10	16
4,600– 4,799	23	52	.....	112	138	.....	8	14	.....	8	10
4,400– 4,599	54	53	.....	76	95	.....	10	6	.....	10	5
4,200– 4,399	65	33	.....	49	87	.....	5	10	.....	4	6
4,000– 4,199	40	32	.....	32	61	1	1	2	.....	2	2
3,800– 3,999	45	21	1	20	40	.....	.....	2	.....	2	.....
3,600– 3,799	56	33	1	15	27	.....	.....	2	.....	1	1
3,400– 3,599	19	25	.....	5	22	.....	1	1	.....	.....	.....
3,200– 3,399	8	12	.....	2	18	.....	.....	1	.....	1	.....
3,000– 3,199	11	13	.....	3	18	.....	.....	.....	.....	.....	1
Below $3,000	25	12	.....	1	2	.....	.....	.....	.....	.....	.....
Total	459	508	2,669	3,728	3,372	284	549	589	422	639	535
Median	$4,278	$4,677	$7,956	$6,321	$5,897	$8,600	$6,870	$6,500	$9,692	$7,373	$7,255
Arithmetic mean	$4,394	$4,609	$7,994	$6,314	$5,929	$8,730	$6,896	$6,567	$9,903	$7,362	$7,266

[a] No teaching elementary-school principals were reported for Group I school districts.
[b] For population ranges, see Table 1, page 61.

Arithmetic mean	$4,394	$4,609	$7,994	$6,314	$5,929	$8,730	$6,896	$6,567	$9,903	$7,362	$7,266

[a] No teaching elementary-school principals were reported for Group I school districts.
[b] For population ranges, see Table 1, page 61.

TABLE 12.—DISTRIBUTION OF SALARIES PAID PRINCIPALS IN URBAN SCHOOL DISTRICTS UNDER 30,000 IN POPULATION IN 1954-55

Salary groups	Elementary-school principals						Junior high-school principals						High-school principals					
	Teaching			Supervising			Teaching			Supervising			Teaching			Supervising		
	Group IV[a]	Group V[a]	Group VI[a]	Group IV	Group V	Group VI	Group IV	Group V	Group VI	Group IV	Group V	Group VI	Group IV	Group V	Group VI	Group IV	Group V	Group VI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
$9,000 and over	.....	.....	.....	15	2	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	38	7	.....
8,500–8,999	.....	.....	.....	22	4	.....	.....	.....	.....	4	1	.....	.....	.....	.....	20	5	.....
8,000–8,499	.....	.....	.....	45	5	.....	.....	.....	.....	9	1	.....	.....	.....	.....	41	3	1
7,800–7,999	.....	.....	.....	21	7	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	14	4	.....
7,600–7,799	.....	.....	.....	27	9	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	12	6	.....
7,400–7,599	.....	.....	.....	35	6	2	.....	.....	.....	6	1	.....	.....	.....	.....	32	8	2
7,200–7,399	.....	.....	.....	54	7	1	.....	.....	.....	10	.....	.....	.....	.....	.....	37	8	1
7,000–7,199	4	.....	.....	60	15	1	.....	.....	.....	17	.....	.....	1	.....	.....	44	23	1
6,800–6,999	1	.....	.....	66	9	.....	.....	.....	.....	16	2	.....	2	.....	.....	46	16	4
6,600–6,799	2	.....	.....	105	24	4	.....	.....	.....	17	2	.....	1	.....	.....	45	19	5
6,400–6,599	3	.....	1	107	30	5	.....	.....	.....	21	6	.....	.....	.....	.....	65	35	10
6,200–6,399	2	2	.....	119	33	14	.....	.....	.....	35	5	1	.....	.....	.....	61	28	12
6,000–6,199	13	1	2	157	49	6	.....	.....	.....	34	10	1	.....	.....	1	69	69	13
5,800–5,999	9	5	1	126	40	13	.....	.....	.....	33	12	.....	.....	1	1	52	41	10
5,600–5,799	20	4	2	174	67	16	.....	.....	.....	33	13	1	1	2	1	40	46	17
5,400–5,599	33	11	5	220	62	13	.....	.....	.....	27	16	2	1	1	.....	44	61	26
5,200–5,399	65	22	6	204	66	20	1	.....	.....	26	13	3	.....	1	1	28	56	30
5,000–5,199	73	25	5	172	83	12	1	.....	1	27	12	3	5	4	3	21	50	41
4,800–4,999	92	40	8	146	66	18	2	.....	1	25	16	4	4	1	7	27	40	34
4,600–4,799	105	58	11	170	57	26	2	3	3	16	12	9	4	2	10	19	29	17
4,400–4,599	159	76	17	144	73	23	.....	5	2	16	12	5	2	5	4	20	20	21
4,200–4,399	140	66	22	101	55	24	4	11	3	6	8	2	1	5	4	9	21	9
4,000–4,199	115	91	33	71	37	17	6	2	3	5	6	6	1	8	4	7	17	8
3,800–3,999	104	107	30	67	24	11	2	1	1	3	2	2	1	2	1	3	4	4
3,600–3,799	85	96	24	36	15	4	.....	1	2	2	2	2	4	3	.....	8	5	3
3,400–3,599	75	73	27	21	12	8	1	1	3	1	2	.....	2	2	3	2	4	3
3,200–3,399	41	40	24	20	14	6	1	2	2	1	2	.....	1	3	1	4	3	2
3,000–3,199	36	38	15	17	8	8	.....	.....	.....	2	.....	.....	.....	.....	1	1	3	2
2,800–2,999	13	21	14	5	4	1	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
2,600–2,799	8	12	5	4	2	1	.....	.....	1	.....	.....	.....	.....	2	2	.....	1	.....
2,400–2,599	9	10	.....	2	4	.....	1	2	.....	.....	.....	.....	.....	1	.....	.....	1	.....
Below $2,400	7	8	.....	.....	2	2	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Total	1,214	806	252	2,533	891	256	21	29	22	409	156	42	31	44	44	809	633	276
Median	$4,357	$3,996	$3,919	$5,479	$5,175	$4,773	$4,183	$4,290	$4,150	$5,888	$5,262	$4,650	$4,775	$4,200	$4,640	$6,366	$5,607	$5,171
Arithmetic mean	$4,354	$4,039	$3,962	$5,579	$5,251	$4,871	$4,221	$4,054	$4,070	$5,946	$5,271	$4,661	$4,803	$4,217	$4,488	$6,443	$5,689	$5,247

[a] For population ranges, see Table 1, page 61.

TABLE 13.—DISTRIBUTION OF SALARIES PAID CERTAIN ADMINISTRATIVE AND SUPERVISORY OFFICERS IN URBAN SCHOOL DISTRICTS OVER 30,000 IN POPULATION IN 1954-55

Salary groups	Superintendents of schools			Assistant, associate, or deputy superintendents			Secretaries of boards of education			Directors and supervisors of elementary education			Directors and supervisors of music			Directors and supervisors of physical and health education		
	Group I*	Group II*	Group III*	Group I	Group II	Group III	Group I	Group II	Group III	Group I	Group II	Group III	Group I	Group II	Group III	Group I	Group II	Group III
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
$30,000 and over	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25,000–29,999	3	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20,000–24,999	6	6	1	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18,000–19,999	4	8	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16,000–17,999	1	18	12	23	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14,000–15,999	2	34	55	10	5	.....	2	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
12,000–13,999	.....	21	93	60	30	4	.....	3	.....	.....	.....	.....	3	.....	.....	1	.....	.....
10,000–11,999	.....	21	102	35	66	46	3	3	2	1	.....	.....	2	2	.....	3	3	.....
9,500– 9,999	.....	3	23	8	18	18	1	2	2	1	6	1	.....	1	.....	2	1	.....
9,000– 9,499	.....	2	25	7	36	26	.....	1	4	4	5	4	.....	3	1	2	8	4
8,500– 8,999	.....	2	15	5	16	28	.....	2	5	4	6	4	10	4	2	4	10	5
8,000– 8,499	.....	.....	19	1	21	29	1	2	6	9	13	11	1	10	1	6	11	7
7,500– 7,999	.....	.....	8	.....	13	22	.....	5	8	20	19	12	5	7	10	7	14	11
7,000– 7,499	.....	.....	8	.....	6	23	.....	3	10	12	25	39	24	12	18	23	17	28
6,500– 6,999	.....	.....	.....	.....	10	15	1	3	11	7	28	47	6	33	40	4	20	38
6,000– 6,499	.....	.....	4	.....	4	14	1	1	11	10	29	36	9	20	55	7	25	42
5,500– 5,999	.....	.....	.....	.....	3	5	1	3	10	2	20	40	1	12	74	4	17	58
5,000– 5,499	.....	.....	.....	.....	.....	3	1	1	12	.....	18	29	1	13	62	1	8	34
4,800– 4,999	.....	.....	.....	.....	.....	.....	.....	1	4	.....	5	13	.....	1	21	.....	3	12
4,600– 4,799	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	5	.....	6	13	.....	.....	9
4,400– 4,599	.....	.....	.....	.....	.....	.....	.....	1	2	.....	11	6	.....	2	15	.....	1	5
4,200– 4,399	.....	.....	.....	.....	.....	.....	.....	3	2	.....	7	3	.....	3	11	.....	1	3
4,000– 4,199	.....	.....	.....	.....	.....	.....	.....	1	5	.....	2	5	.....	1	15	.....	.....	4
3,800– 3,999	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	1	.....	1	11	.....	1	4
3,600– 3,799	.....	.....	.....	.....	.....	.....	.....	2	3	.....	.....	1	.....	.....	14	.....	1	4
3,400– 3,599	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	1	8	.....	.....	.....
3,200– 3,399	.....	.....	.....	.....	.....	.....	.....	1	3	.....	.....	1	.....	.....	3	.....	1	2
3,000– 3,199	.....	.....	.....	.....	.....	.....	1	1	2	.....	.....	.....	.....	1	2	.....	1	4
Below $3,000	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2	.....	.....	1
Total	18	115	366	151	228	233	14	40	105	70	199	260	62	133	378	65	143	275
Median	$20,750	$14,000	$11,400	$13,022	$9,600	$8,500	$10,294	$7,372	$6,300	$7,600	$6,500	$6,250	$7,260	$6,550	$5,514	$7,260	$6,793	$5,950
Arithmetic mean	$21,444	$14,149	$11,453	$13,018	$9,808	$8,541	$10,198	$7,340	$6,249	$7,572	$6,561	$6,272	$7,667	$6,505	$5,492	$7,764	$6,931	$5,996

* For population ranges, see Table 1, page 61.

TABLE 14.—DISTRIBUTION OF SALARIES PAID CERTAIN ADMINISTRATIVE AND SUPERVISORY OFFICERS IN URBAN SCHOOL DISTRICTS UNDER 30,000 IN POPULATION IN 1954-55

Salary groups	Superintendents of schools			Secretaries of boards of education			Superintendents of buildings and grounds			Directors and supervisors of music			Directors and supervisors of elementary education		
	Group IV[a]	Group V[a]	Group VI[a]	Group IV	Group V	Group VI	Group IV	Group V	Group VI	Group IV	Group V	Group VI	Group IV	Group V	Group VI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
$18,000–18,999	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17,000–17,999	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16,000–16,999	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15,000–15,999	8	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14,000–14,999	13	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13,000–13,999	21	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12,000–12,999	47	12	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11,000–11,999	49	14	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10,000–10,999	104	32	9	1	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....
9,500– 9,999	67	26	3	1	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....
9,000– 9,499	99	56	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8,500– 8,999	87	48	20	1	.....	.....	2	1	.....	.....	.....	.....	6	.....	.....
8,000– 8,499	99	104	31	.....	.....	.....	2	.....	.....	1	.....	.....	7	.....	.....
7,500– 7,999	67	92	50	4	.....	.....	4	.....	.....	1	.....	.....	7	.....	.....
7,000– 7,499	61	110	63	4	.....	.....	6	.....	.....	3	.....	.....	13	2	.....
6,500– 6,999	38	102	73	4	.....	.....	16	2	.....	11	1	.....	26	5	.....
6,000– 6,499	19	72	70	10	1	.....	30	1	.....	47	4	.....	33	17	.....
5,800– 5,999	2	6	20	4	4	.....	11	1	.....	16	1	3	14	5	.....
5,600– 5,799	.....	12	22	2	2	1	18	2	.....	21	6	.....	23	6	.....
5,400– 5,599	2	15	25	16	.....	1	19	3	1	26	6	.....	11	7	1
5,200– 5,399	1	8	8	8	4	.....	25	2	.....	29	3	1	12	7	2
5,000– 5,199	1	7	14	13	7	1	40	8	3	29	9	2	42	15	3
4,800– 4,999	1	6	7	10	6	1	25	11	1	30	13	2	10	10	3
4,600– 4,799	.....	2	.....	11	3	2	21	6	2	29	15	1	12	4	1
4,400– 4,599	.....	2	5	13	7	1	31	11	3	43	17	5	18	9	2
4,200– 4,399	1	.....	2	15	7	1	28	19	3	28	16	2	14	8	3
4,000– 4,199	.....	.....	3	15	5	.....	25	16	2	31	14	3	9	7	2
3,800– 3,999	.....	.....	.....	12	7	3	19	8	1	20	16	2	4	5	2
3,600– 3,799	.....	.....	2	20	14	5	25	14	4	21	13	1	3	3	.....
3,400– 3,599	.....	.....	1	9	4	2	6	5	.....	18	13	2	1	3	.....
3,200– 3,399	.....	.....	.....	7	7	5	10	8	1	12	16	4	.....	1	.....
3,000– 3,199	.....	.....	.....	5	12	11	11	6	3	14	14	2	1	3	.....
2,800– 2,999	.....	.....	.....	4	4	4	4	1	.....	6	6	2	.....	.....	.....
2,600– 2,799	.....	.....	.....	7	10	3	5	6	.....	4	4	.....	.....	.....	.....
2,400– 2,599	.....	.....	.....	6	10	6	2	3	1	2	1	.....	.....	.....	.....
2,200– 2,399	.....	.....	.....	.....	3	4	.....	.....	.....	.....	1	.....	.....	.....	.....
2,000– 2,199	.....	.....	.....	7	9	5	2	.....	.....	.....	.....	.....	.....	.....	.....
1,800– 1,999	.....	.....	.....	9	16	6	.....	1	.....	.....	1	.....	.....	.....	.....
1,600– 1,799	.....	.....	.....	1	7	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
1,400– 1,599	.....	.....	.....	6	13	11	.....	.....	.....	.....	.....	.....	.....	.....	.....
1,200– 1,399	.....	.....	.....	7	22	15	.....	.....	.....	.....	.....	.....	.....	.....	.....
Below $1,200	.....	.....	.....	1	8	6	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	796	732	435	234	192	96	389	135	25	443	190	32	267	117	19
Median	$9,033	$7,557	$6,623	$4,208	$2,771	$2,300	$4,832	$4,192	$4,225	$4,728	$4,160	$4,150	$5,556	$5,055	$4,750
Arithmetic mean	$9,330	$7,772	$6,790	$4,238	$2,933	$2,474	$4,880	$4,191	$4,126	$4,807	$4,157	$4,206	$5,684	$5,068	$4,666

[a]For population ranges, see Table 1, page 61.

TABLE 15.—DISTRIBUTION OF SALARIES PAID SECRETARIAL AND CLERICAL EMPLOYEES IN 1954-55

Salary groups	Secretaries to superintendents						Clerks in administrative and supervisory offices						Clerks in principals' offices					
	Group I[a]	Group II[a]	Group III[a]	Group IV[a]	Group V[a]	Group VI[a]	Group I	Group II	Group III	Group IV	Group V	Group VI	Group I	Group II	Group III	Group IV	Group V	Group VI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
$6,000 and over	7	3	4	1	1	.....	8	5	3	.....	.....	.....	.....	4	.....	.....	.....	.....
5,800–5,999	.....	2	2	2	.....	.....	3	8	1	4	.....	.....	.....	1	.....	.....	.....	.....
5,600–5,799	.....	3	1	1	.....	.....	13	12	5	1	.....	.....	1	1	2	.....	.....	.....
5,400–5,599	3	1	4	2	.....	.....	49	14	1	7	.....	.....	1	1	.....	.....	.....	.....
5,200–5,399	.....	2	7	4	1	.....	35	19	4	1	.....	1	.....	23	.....	.....	.....	.....
5,000–5,199	3	5	6	12	3	.....	33	11	8	.....	.....	.....	2	50	2	.....	1	.....
4,800–4,999	2	4	12	16	.....	1	121	35	13	3	.....	.....	128	6	2	6	.....	.....
4,600–4,799	.....	6	11	9	6	.....	41	41	12	5	2	.....	3	6	11	1	.....	.....
4,400–4,599	.....	8	22	26	11	3	141	87	30	11	1	.....	18	28	11	3	.....	1
4,200–4,399	2	13	29	36	9	3	231	124	49	21	4	1	694	49	23	8	1	1
4,000–4,199	1	13	41	29	17	4	185	121	91	42	6	1	178	99	46	20	5	1
3,800–3,999	.....	15	25	39	19	3	251	244	119	53	12	1	347	113	81	19	8	3
3,600–3,799	.....	14	42	69	30	10	248	340	232	83	27	5	669	202	160	58	10	8
3,400–3,599	.....	10	29	64	25	8	168	317	205	82	26	4	238	297	170	59	22	5
3,200–3,399	.....	6	34	74	47	15	269	453	278	116	23	3	1,224	372	279	114	28	7
3,000–3,199	.....	5	35	70	74	26	284	579	357	164	34	7	231	492	419	217	55	9
2,900–2,999	.....	.....	6	17	16	6	92	255	153	55	11	2	252	282	159	88	21	7
2,800–2,899	.....	1	8	38	36	12	87	256	173	77	10	6	115	323	221	138	32	8
2,700–2,799	.....	1	7	22	34	15	84	259	169	98	22	2	116	296	223	133	37	9
2,600–2,699	.....	.....	4	17	19	13	55	248	156	78	14	4	66	311	198	136	38	15
2,500–2,599	.....	2	5	19	25	12	83	190	151	67	17	8	196	518	238	169	55	12
2,400–2,499	.....	1	11	30	43	32	60	209	164	101	40	6	67	323	260	185	77	16
2,300–2,399	.....	.....	1	12	11	9	68	131	78	73	10	3	103	238	176	144	39	10
2,200–2,299	.....	.....	2	13	24	18	17	127	106	68	17	7	118	292	169	190	63	13
2,100–2,199	.....	.....	3	13	18	15	8	101	71	74	22	2	59	257	187	194	41	14
2,000–2,099	.....	.....	1	10	14	20	9	64	54	59	20	3	24	205	174	170	64	22
1,900–1,999	.....	.....	.....	7	16	7	.....	53	41	47	15	7	19	340	164	123	46	10
1,800–1,899	.....	.....	1	7	21	17	.....	30	41	53	15	12	.....	271	122	165	65	19
1,700–1,799	.....	.....	.....	2	6	3	1	16	30	20	10	2	.....	196	104	83	43	14
1,600–1,699	.....	.....	.....	3	9	7	1	10	13	24	13	4	.....	274	133	95	39	10
Below $1,600	.....	.....	.....	2	7	19	.....	15	21	37	13	10	.....	280	323	196	122	42
Total	18	115	353	666	542	278	2,645	4,374	2,829	1,524	384	101	4,869	6,150	4,057	2,714	912	256
Median	$5,540	$4,000	$3,700	$3,349	$2,867	$2,475	$3,642	$3,072	$2,996	$2,762	$2,606	$2,408	$3,382	$2,577	$2,591	$2,398	$2,257	$2,179
Arithmetic mean	$5,870	$4,132	$3,767	$3,377	$2,921	$2,567	$3,661	$3,153	$3,031	$2,829	$2,699	$2,459	$3,470	$2,649	$2,616	$2,437	$2,289	$2,266

[a] For population ranges, see Table 1, page 61.

TABLE 16.—DISTRIBUTION OF SALARIES PAID OTHER SCHOOL EMPLOYEES IN 1954-55

TABLE 16.—DISTRIBUTION OF SALARIES PAID OTHER SCHOOL EMPLOYEES IN 1954-55

Salary groups	Attendance officers						Nurses						Janitors[a]		
	Group I[b]	Group II[b]	Group III[b]	Group IV[b]	Group V[b]	Group VI[b]	Group I	Group II	Group III	Group IV	Group V	Group VI	Group IV	Group V	Group VI
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
$7,600 and over	1	1	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....
7,100–7,599	10	2	2	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....
6,600–7,099[c]	8	11	4	8	.....	.....	.....	1	7	8	1	.....	3	1	.....
6,000–6,599[d]	92	28	9	8	.....	.....	14	23	26	21	4	1	4	.....	.....
5,500–5,999[e]	65	57	8	12	1	.....	72	140	46	32	4	1	5	4	2
5,000–5,499	341	67	9	13	1	.....	73	121	121	72	12	4	42	10	4
4,500–4,999	63	111	25	26	4	2	117	195	155	113	34	6	243	51	18
4,400–4,499	19	19	7	4	3	.....	46	51	47	36	15	2	93	11	6
4,300–4,399	26	36	7	8	1	.....	26	80	39	30	12	3	133	25	10
4,200–4,299	19	17	7	3	1	.....	15	34	54	43	14	3	254	53	12
4,100–4,199	82	28	12	9	.....	.....	27	45	38	40	19	.....	196	47	14
4,000–4,099	34	21	9	10	1	.....	50	58	56	44	26	3	304	76	25
3,900–3,999	24	22	9	10	.....	1	50	61	50	51	18	3	351	92	23
3,800–3,899	29	13	17	9	5	1	13	48	53	44	21	7	375	84	33
3,700–3,799	172	19	12	15	3	.....	3	43	51	48	23	9	462	104	44
3,600–3,699	16	21	16	26	2	.....	29	82	57	66	19	7	648	194	55
3,500–3,599	3	12	8	15	1	.....	6	44	45	48	28	8	557	162	46
3,400–3,499	25	23	7	16	3	1	70	53	61	65	23	13	744	205	71
3,300–3,399	9	8	10	10	.....	1	7	73	53	39	25	10	975	275	67
3,200–3,299	7	5	7	10	.....	3	18	66	56	51	23	7	658	256	89
3,100–3,199	8	9	4	6	1	2	7	29	37	35	22	9	696	314	79
3,000–3,099	2	13	14	11	1	1	6	35	39	48	33	12	630	377	107
2,900–2,999	.....	14	5	4	4	.....	.....	48	19	16	10	4	454	171	79
2,800–2,899	.....	8	11	11	3	.....	30	34	16	27	24	3	534	310	79
2,700–2,799	.....	2	6	6	6	1	2	33	9	15	8	5	476	205	69
2,600–2,699	.....	2	10	5	4	1	4	11	9	15	8	4	330	183	80
2,500–2,599	.....	.....	10	6	1	1	1	13	5	15	5	5	282	145	43
2,400–2,499	.....	2	1	5	4	2	.....	7	8	9	9	4	382	201	71
2,300–2,399	.....	17	6	3	2	.....	.....	6	8	4	2	3	148	65	31
2,200–2,299	.....	.....	1	2	2	.....	.....	7	3	.....	2	1	201	110	41
2,100–2,199	.....	3	.....	5	.....	.....	.....	14	3	1	2	1	211	96	34
2,000–2,099	.....	2	3	3	1	.....	.....	3	6	4	.....	.....	147	58	27
1,900–1,999	.....	5	1	.....	3	.....	.....	7	.....	2	2	.....	176	39	26
1,800–1,899	.....	1	2	2	4	.....	.....	4	7	.....	.....	.....	120	102	32
1,700–1,799	.....	.....	2	3	.....	.....	.....	1	3	.....	.....	.....	64	37	10
1,600–1,699	.....	.....	.....	1	1	.....	.....	1	.....	.....	.....	.....	90	25	15
1,500–1,599	.....	1	3	.....	1	1	.....	1	2	.....	.....	.....	129	52	23
1,400–1,499	.....	.....	.....	1	2	1	.....	.....	.....	.....	.....	.....	72	27	14
1,300–1,399	.....	.....	.....	1	.....	1	.....	.....	.....	2	.....	.....	68	26	8
1,200–1,299	.....	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....	71	24	16
1,100–1,199	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	19	16	3
1,000–1,099	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37	22	3
Below $1,000	.....	.....	.....	2	.....	1	.....	.....	.....	.....	.....	.....	208	92	43
Total	1,055	600	264	291	67	21	686	1,472	1,194	1,044	448	139	11,592	4,347	1,452
Median	$4,869	$4,389	$3,742	$3,660	$2,850	$3,125	$4,319	$4,021	$3,994	$3,827	$3,593	$3,404	$3,238	$3,044	$2,973
Arithmetic mean	$4,734	$4,421	$3,825	$3,788	$3,059	$2,917	$4,331	$4,087	$4,086	$3,947	$3,679	$3,453	$3,137	$2,962	$2,894

[a] Because of the diversity of janitorial positions in urban school districts over 30,000 in population, no figures for janitors were collected for Groups I, II, and III.
[b] For population ranges, see Table 1, page 61.
[c] For Groups IV, V, and VI this salary grouping is $6,500 and over.
[d] For Groups IV, V, and VI this salary grouping is $5,900 to $6,499.
[e] For Groups IV, V, and VI this salary grouping is $5,500 to $5,899.

IV. Indexes of Relationships of Median Salaries

Tables 17 and 18 show comparisons of median salaries by the use of index numbers based on the tables in Section II. In each population group the median salary of the elementary-school classroom teachers is taken as 100 for each of three school years—1930-31, 1940-41, and 1954-55.

The figures are of most significance for positions generally found in all school systems such as the three major groups: classroom teachers, principals, and superintendents of schools. Positions that occur least often are likely to be found only in the school systems where relatively high salaries are paid, thus resulting in high medians for the positions. Column 2 of the tables in Section II gives the number of school systems reporting each type of employee in 1954-55 and should be consulted when using Tables 17 and 18.

Substantial changes in relationships from 1930-31 to 1954-55 are shown. As noted earlier, there has been a shift toward closing the gap between classroom teachers in elementary schools and in high schools. Even

TABLE 17.—INDEX RELATIONSHIPS OF MEDIAN SALARIES IN URBAN SCHOOL DISTRICTS OVER 30,000 IN POPULATION, 1930-31, 1940-41, AND 1954-55

Type of school employee	Index of relationship, elementary-school teachers' salary = 100								
	Group I[a]			Group II[a]			Group III[a]		
	1930-31	1940-41	1954-55	1930-31	1940-41	1954-55	1930-31	1940-41	1954-55
1	2	3	4	5	6	7	8	9	10
Classroom teachers:									
Kindergarten	96	97	95	99	99	101	100	105	100
Elementary school	100	100	100	100	100	100	100	100	100
Atypical classes	108	101	103	111	110	113	115	111	111
Junior high school	112	115	96	114	110	106	116	115	109
High school	127	128	115	129	120	115	131	127	116
Junior college	...	...	125	...	...	148	...	...	138
Part-time or continuation school	120	116	95	124	104	116	135	131	107
Teaching department heads, deans, and assistant principals:									
Junior high school	...	...	139	...	...	125	...	...	129
High school	...	...	124	...	...	138	...	...	136
Supervising deans, department heads, and assistant principals:									
Elementary school:									
Assistant principals	182	192	146	133	159	137	171	129	140
Junior high school:									
Deans and department heads	...	...	143	...	...	143	...	...	135
Assistant principals	153	189	135	165	156	153	170	166	142
High school:									
Deans	...	...	119	150	141	141	157	153	147
Department heads	...	...	158	...	...	146	...	...	148
Assistant principals	234	171	157	187	172	162	190	192	155
Junior college:									
Deans, department heads, and assistant principals	...	...	181	...	...	197	...	...	173
Principals:									
Teaching elementary school	...	...	...	125	110	105	125	118	116
Supervising elementary school	172	163	156	165	155	156	164	154	146
Junior high school	206	211	168	204	198	169	208	197	161
High school	236	222	190	244	220	182	266	249	180
Junior college	...	...	230	...	...	219	...	...	209
Part-time, continuation, or adult education school	229	209	181	188	189	184	190	196	192
Administrative and supervisory staff:									
Superintendents of schools	627	542	406	486	433	345	420	380	283
Associate, assistant, or deputy superintendents	315	266	255	278	280	237	285	269	211
Administrative assistants	...	...	165	...	...	192	...	...	182
Secretaries of boards of education	260	197	201	219	179	182	156	165	156
Business managers	353	318	272	272	247	206	229	215	184
Auditors	...	...	188	...	...	133	...	...	122
Other school employees:									
Secretarial and clerical employees:									
Secretaries to superintendents of schools	112	140	108	119	105	99	113	103	92
Clerks in principals' offices	63	61	66	56	54	64	65	61	64
Clerks in other administrative and supervisory offices	71	73	71	75	71	76	79	77	74
Nurses	80	79	85	87	89	99	103	101	99
Attendance officers	90	98	95	101	102	108	108	98	93

[a] For population ranges, see Table 1, page 61.

greater changes have occurred in the relationship of administrative salaries to those of classroom teachers.

The effect or lack of effect of the population size on salary relationships may be studied in Tables 17 and 18. Size seems to make little difference so far as classroom teachers are concerned; the high-school median is from 11 to 16 percent higher in 1954-55 than the elementary-school median in all population groups. Superintendents of schools, however, show a definite progression from salaries 91 percent above elementary-school teachers in Group VI to 306 percent in Group I.

TABLE 18.—INDEX RELATIONSHIPS OF MEDIAN SALARIES IN URBAN SCHOOL DISTRICTS UNDER 30,000 IN POPULATION, 1930-31, 1940-41, AND 1954-55

Type of school employee	Index of relationship, elementary-school teachers' salary = 100								
	Group IV[a]			Group V[a]			Group VI[a]		
	1930-31	1940-41	1954-55	1930-31	1940-41	1954-55	1930-31	1940-41	1954-55
1	2	3	4	5	6	7	8	9	10
Classroom teachers:									
Elementary school[b]	100	100	100	100	100	100	100	100	100
Junior high school	113	112	106	115	113	104	117	113	103
High school	131	126	114	130	126	112	133	124	111
Junior college	...	...	125	...	...	108	...	...	...
Part-time or continuation school	131	116	114	112	66	124	...	...	121
Supervising assistant principals, deans, and department heads:									
Junior high school	...	...	141	...	...	121	...	...	...
High school	...	...	148	...	...	145	...	...	138
Junior college	...	...	158	...	...	...	...	...	...
Principals:									
Elementary school:									
Teaching	122	118	113	121	116	111	121	117	113
Supervising	164	155	142	172	161	144	187	163	138
Total	133	129	131	127	122	126	126	123	124
Junior high school:									
Teaching	...	...	108	...	...	119	...	...	120
Supervising	...	...	153	...	...	147	...	...	134
Total	193	181	151	168	155	140	153	139	129
High school:									
Teaching	...	...	124	...	...	117	...	...	134
Supervising	...	...	165	...	...	156	...	...	149
Total	253	231	164	217	201	154	207	186	147
Junior college presidents, principals, or chief administrators	...	...	170	...	...	148	...	...	...
Administrative and supervisory staff:									
Superintendents of schools	361	328	234	321	293	210	307	280	191
Assistant superintendents	207	218	189	253	213	184	...	...	...
Secretaries of boards of education	88	90	109	43	51	77	...	...	66
Business managers	224	183	156	192	167	143	...	170	137
Superintendents of buildings and grounds	152	147	125	146	164	117	185	137	122
Directors and supervisors of:									
Educational divisions:									
Elementary education	...	...	144	...	...	141	...	...	134
Secondary education	...	...	159	...	...	149	...	...	...
Adult education	...	...	156	...	...	162	...	...	...
Special education	...	...	105	...	...	116	...	...	...
Special subjects:									
Vocational education	211	176	142	180	173	135	215	170	...
Physical and health education	141	143	135	145	139	121	151	149	...
Art	128	127	116	130	124	107	...	...	...
Music	136	132	123	133	127	116	124	124	120
Manual or industrial arts	154	142	131	157	139	111	...	...	...
Home economics	120	117	115	124	116	101	...	...	...
Special services:									
Research, tests, etc.	151	157	144	...	...	...	...	...	...
Guidance	...	...	132	...	...	131	...	...	134
Pupil personnel	...	...	131	...	...	124	...	...	...
Curriculum	...	...	159	...	...	157	...	...	...
Audio-visual education	...	...	135	...	...	132	...	...	...
School library services	...	...	122	...	...	112	...	...	...
Health services	...	...	136	...	...	127	...	...	...
School lunch services	...	...	101	...	...	92	...	...	...
Transportation	...	...	115	...	...	103	...	...	...
Other school employees:									
Secretarial and clerical employees:									
Secretaries to superintendents of schools	102	96	87	91	89	80	76	76	71
Clerks in principals' offices	68	62	62	61	62	63	67	68	63
Clerks in other administrative and supervisory offices	78	74	72	81	70	72	66	72	69
Janitors	95	92	84	98	94	85	102	103	86
Nurses	123	112	99	126	118	100	133	113	98
Attendance officers	84	86	95	...	...	79	...	...	90

[a] For population ranges, see Table 1, page 61.
[b] Includes kindergarten teachers.

V. Salary Schedules for Classroom Teachers

The questionnaire sent in each of the biennial salary inquiries includes several items on the salary schedule. This section reports the extent to which definite schedules were reported in 1954-55, for each of the six population groups of school districts. For the districts of 100,000 or more population, additional facts are reported on the preparation or single-salary schedules that are now typical.

Prevalence of Salary Schedules

Almost all the larger districts report the use of a definite salary schedule (Table 19). When districts of all sizes are combined, 96.4 percent have a salary schedule; some of these use only a state minimum salary schedule.

That a minority of even 3.6 percent of the urban school districts have not taken the basic administrative step of adopting a salary schedule is reason for concern, both in the profession and among laymen.

An overwhelming majority of the schedules examined were of the *single-salary or preparation type,* with equal salaries for elementary-school and secondary-school teachers of equivalent preparation. In 1940-41 only 31.3 percent of the schedules were of this type; by 1950-51, 97.1 percent. No separate count was made in 1954-55, but inspection indicates that the proportion is at least 98 percent.

Differences between elementary-school and secondary-school salaries of classroom teachers, appearing in earlier tables, show that the full effect of the single schedule is still to be felt. Scarcity of professionally prepared elementary-school teachers and higher requirements for high-school positions help to maintain a higher salary level for high-school teachers. In addition is the effect of salary differences in areas where elementary-school and secondary-school teachers, altho both on preparation-type schedules, are in separate school systems and thus on separate schedules.

Minimum and Maximum Salaries

Tables 20 and 21 show distributions of minimum and maximum salaries according to the population of the school districts and according to level of preparation. Medians of the minimum and maximum salaries are also shown.

Within each population group the medians of the *minimums* and of the *maximums* tend to rise with level of preparation. Within each preparation group the medians of the minimums and of maximums tend to rise with the size of the school district.

For classroom teachers with four years of preparation or bachelor's degrees, the median of minimum salaries is $3400 in Group I and $3194 in Group II. For the master's degree, the median of minimum salaries is $3533 in Group I and $3375 in Group II.

Six of the 18 Group I schedules and 57 of the 107 Group II schedules provide for salary classes beyond the master's degree. Minimum salaries are also tabulated for 6 years' preparation, for the doctor's degree (or 7 years), and for the highest if above 5 years. The last named class comprises all schedules included in either of the two preceding classes. For Group I the median of the minimum salaries scheduled for the highest level of preparation was $3864; for Group II, $3700.

Table 21 gives maximum salaries for the same preparation groups. The medians of

TABLE 19.—NUMBER OF URBAN SCHOOL DISTRICTS REPORTING SALARY SCHEDULES IN 1954-55

Items	Group I[a]		Group II[a]		Group III[a]		Group IV[a]		Group V[a]		Group VI[a]		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Does your school system have a salary schedule?														
Yes	18	100.0%	115	100.0%	355	100.0%	783	98.2%	689	96.0%	385	89.5%	2,345	96.4%
No	0	0.0	0	0.0	0	0.0	14	1.8%	29	4.0%	45	10.5%	88	3.6%
Total	18	100.0%	115	100.0%	355	100.0%	797	100.0%	718	100.0%	430	100.0%	2,433	100.0%
Not specified	0	....	0	....	13	....	2	....	8	....	10	....	33	....

[a] For population ranges, see Table 1, page 61.

maximum salaries in Group I are $5540 for the bachelor's degree, $5800 for master's degree, and $6214 for the highest level recognized. The corresponding figures for Group II are $5035, $5344, and $5917.

In Table 22 the salary differentials between successive levels of preparation are tabulated. The two levels of preparation that are found in nearly all of the schedules studied are the four-year and five-year levels. Table 22 shows, in columns 4 and 5, that the maximum salary of the five-year or master's degree level exceeds the maximum salary at the four-year level by median differentials of $288 in Group I districts and $368 in Group II. The differentials range from less than $100 to $1410.

Scheduled Salary Increments

Essential to a salary schedule is a series of increment steps, usually given annually, for progress from the minimum to the maximum of each salary class. Information was recorded on increments scheduled in the four-year or bachelor's degree class, also for the five-year or master's degree class.

The number of increments in the bachelor's degree class ranges from five increments in one schedule to 25 in one schedule. The median number is 12 in Group I and 13 in Group II. Thus, the higher median salaries in Group I are reached after one year's service less than is required in Group II.

At the master's degree level the range in number of increments is from three to 27 and the median number is 12 in Group I and 14 in Group II.

Questions sometimes arise as to uniformity or variety in the size of increments. The majority practice is that of increments of the same size from minimum to maximum, with the possible exception of the first or last in some schedules. Various increment patterns are:

	Group I	*Group II*
Increments of uniform size	38.9%	38.3%
Increments uniform except first or last	44.4	16.8
Larger increments in early years	0.0	7.5
Larger increments in later years	5.6	8.4
Other variations	11.1	29.0
Total	100.0%	100.0%
Number of schedules	18	107

TABLE 20.—DISTRIBUTION OF MINIMUM SALARIES IN SINGLE-SALARY SCHEDULES IN URBAN SCHOOL DISTRICTS OVER 100,000 IN POPULATION IN 1954-55[a]

Salary interval	18 Group I districts[b]					107 Group II districts[b]				
	Bachelor's degree (or 4 years)	Master's (or 5 years)	6 years	Doctor's (or 7 years)	Highest if above 5 years[c]	Bachelor's degree (or 4 years)	Master's (or 5 years)	6 years	Doctor's (or 7 years)	Highest if above 5 years[c]
1	2	3	4	5	6	7	8	9	10	11
$4,500 or more	....	....	....	....	....	....	....	1	3	4
4,400–4,499	....	....	....	....	....	....	....	2	1	2
4,300–4,399	....	....	....	....	....	....	....	2	....	1
4,200–4,299	....	....	1	....	1	....	3	3	2	3
4,100–4,199	....	2	1	1	1	....	....	....	1	1
4,000–4,099	....	1	....	....	....	....	5	2	3	5
3,900–3,999	1	1	....	1	1	1	2	2	4	4
3,800–3,899	1	....	2	....	1	2	6	2	2	4
3,700–3,799	....	....	....	....	....	7	3	5	3	5
3,600–3,699	1	3	2	....	2	7	10	6	2	6
3,500–3,599	3	3	....	....	....	3	7	3	3	5
3,400–3,499	3	5	....	....	....	14	14	4	3	7
3,300–3,399	1	....	....	....	....	6	8	3	....	2
3,200–3,299	5	2	....	....	....	13	12	....	1	1
3,100–3,199	....	....	....	....	....	8	5	....	2	2
3,000–3,099	2	....	....	....	....	10	8	....	2	2
2,900–2,999	....	....	....	....	....	7	4	....	1	1
2,800–2,899	....	1	....	....	....	8	6	1	1	1
2,700–2,799	1	....	....	....	....	7	2	....	1	1
2,600–2,699	....	....	....	....	....	4	4	....	....	....
2,500–2,599	....	....	....	....	....	1	2	....	....	....
2,400–2,499	....	....	....	....	....	3	2	....	....	....
2,300–2,399	....	....	....	....	....	2	....	....	....	....
2,200–2,299	....	....	....	....	....	....	....	....	....	....
Less than $2,200	....	....	....	....	....	4	1	....	....	....
Total number of schedules	18	18	6	2	6	107	104	36	35	57
Median of the minimum salaries	$3,400	$3,533	$3,850	....	$3,864	$3,194	$3,375	$3,720	$3,750	$3,700

[a] Figures tabulated do not include differentials for dependents or for men teachers. Cost of living adjustments, when reported, are included in figures shown.

[b] For population ranges, see Table 1, page 61.

[c] Column 6 includes all schedules represented in either column 4 or column 5; column 11 includes all schedules represented in either column 9 or column 10.

The size of the increments for the bachelor's degree class is reported in Table 23. The increments most nearly typical of the entire group of schedules are $202 for the Group I districts and $152 for the Group II districts. A considerable number of districts in both population groups report increments of $200 or more.

Trends and Relationships

Tables similar to 20, 21, 22, and 23 were first released as part of the biennial salary survey report in 1948-49.[1] In that year, for the first time, more than 90 percent of the schedules reported were of the preparation or single-salary type. Similar figures published in 1950-51 and in 1952-53 make possible the reporting of certain trends and relationships which are shown in Table 24 and in the following discussion.

A disturbing fact is the tendency to reduce the relative difference between the maximum and the minimum salaries within a given salary class.

[1] National Education Association, Research Division. "Salaries and Salary Schedules of City-School Employees, 1948-49." *Research Bulletin* 27: 43-71; April 1949. p. 66-68.

TABLE 21.—DISTRIBUTION OF MAXIMUM SALARIES IN SINGLE-SALARY SCHEDULES IN URBAN SCHOOL DISTRICTS OVER 100,000 IN POPULATION IN 1954-55[a]

Salary interval	18 Group I districts[b]					107 Group II districts[b]				
	Bachelor's degree (or 4 years)	Master's (or 5 years)	6 years	Doctor's (or 7 years)	Highest if above 5 years[c]	Bachelor's degree (or 4 years)	Master's (or 5 years)	6 years	Doctor's (or 7 years)	Highest if above 5 years[c]
1	2	3	4	5	6	7	8	9	10	11
$7,000 or more	....	....	1	1	2	....	1	1	3	4
6,900–6,999	....	1	....	....	....	....	....	1	1	1
6,800–6,899	....	....	....	....	....	....	....	....	1	1
6,700–6,799	1	....	....	....	....	1	....	3	1	3
6,600–6,699	....	1	....	....	....	....	1	2	1	3
6,500–6,599	....	1	....	....	....	....	1	3	3	4
6,400–6,499	....	....	....	....	....	....	1	3	1	2
6,300–6,399	1	....	1	....	1	2	2	4	2	5
6,200–6,299	....	....	....	....	....	....	4	1	2	2
6,100–6,199	....	....	1	1	1	....	3	1	2	2
6,000–6,099	1	1	1	....	....	1	13	1	2	3
5,900–5,999	....	1	....	....	....	....	2	2	3	6
5,800–5,899	....	4	1	....	1	5	3	4	....	3
5,700–5,799	....	2	1	....	1	5	4	1	....	1
5,600–5,699	3	6	....	....	....	11	7	2	3	3
5,500–5,599	5	....	....	....	....	3	3	....	5	5
5,400–5,499	5	....	....	....	....	5	4	2	3	5
5,300–5,399	....	....	....	....	....	4	8	2	....	....
5,200–5,299	1	....	....	....	....	5	9	....	2	2
5,100–5,199	....	....	....	....	....	5	6	....	1	1
5,000–5,099	....	....	....	....	....	10	7	2	....	1
4,900–4,999	....	....	....	....	....	2	2	2	1	3
4,800–4,899	....	....	....	....	....	7	4	1	1	1
4,700–4,799	....	....	....	....	....	5	3	1	....	1
4,600–4,699	....	....	....	....	....	8	2	....	....	....
4,500–4,599	....	1	....	....	....	1	3	....	....	....
4,400–4,499	....	....	....	....	....	2	2	....	....	....
4,300–4,399	....	....	....	....	....	5	1	....	1	1
4,200–4,299	1	....	....	....	....	3	2	....	....	....
4,100–4,199	....	....	....	....	....	4	1	....	....	....
4,000–4,099	....	....	....	....	....	3	1	....	....	....
3,900–3,999	....	....	....	....	....	4	1	....	1	1
3,800–3,899	....	....	....	....	....	1	3	....	....	....
3,700–3,799	....	....	....	....	....	....	1	....	....	....
3,600–3,699	....	....	....	....	....	....	1	....	....	....
3,500–3,599	....	....	....	....	....	3	1	....	....	....
Less than $3,500	....	....	....	....	....	4	....	....	....	....
Total number of schedules	18	18	6	2	6	107	107	39	40	64
Median of the maximum salaries	$5,540	$5,800	$6,100	....	$6,214	$5,035	$5,344	$6,050	$5,967	$5,917

[a] Figures tabulated do not include differentials for dependents or for men teachers, nor do they include above-maximum salaries, which, in some school systems, may be granted for additional training or for long or outstanding service. Cost of living adjustments, when reported, are included in figures shown.

[b] For population ranges, see Table 1, page 61.

[c] Column 6 includes all schedules represented in either column 4 or column 5; column 11 includes all schedules represented in either column 9 or column 10.

In 1948-49 the medians of the maximum salaries ranged from 59.7 percent to 74.5 percent higher than the respective medians of minimum salaries. But in 1954-55 the percents were lower, ranging from 57.6 to 64.2 percent.

This effect may be offset in part by the tendency, not revealed by the tables themselves, to add salary classes for higher levels of preparation. Only 40 percent of the schedules of Group II, for example, included in 1948-49 a salary class for preparation beyond the master's degree. But in 1954-55, the proportion had increased to 60 percent.

One striking fact revealed by Table 24 is the difference in rate of increase in the three two-year periods reported upon. Less increase is shown in the two years from 1952-53 to 1954-55 than in either of the two preceding two-year periods. In general, maximum salaries increased only about half as much as minimum salaries. A further comparison is possible, in which the six schedule medians for each population group are expressed as a series of index numbers. When the median minimum for teachers with bachelor's degrees is taken as 100.0, those for master's degrees in 1954-55 are 4 to 6 percent higher.

The median of the maximum salaries scheduled for the highest level of preparation is 82.8 percent higher than the minimum for the bachelor's degree, in Group I districts. In Group II districts it is 85.3 percent higher. These indexes are slightly lower than the corresponding figures for 1952-53.

TABLE 22.—SALARY DIFFERENTIALS BASED ON PROFESSIONAL PREPARATION IN SINGLE-SALARY SCHEDULES REPORTED BY URBAN SCHOOL DISTRICTS OVER 100,000 IN POPULATION IN 1954-55

Amount of salary differential	Amount by which bachelor's degree (or 4-year) level exceeds 3-year level[a]		Amount by which master's degree (or 5-year) level exceeds bach. degree level[a]		Amount by which 6-year level exceeds master's degree level[a]		Amount by which doctor's degree (or 7-year) level exceeds next lower level[b]	
	Group I[c]	Group II[c]	Group I[c]	Group II[c]	Group I[c]	Group II[c]	Group I[c]	Group II[c]
1	2	3	4	5	6	7	8	9
At minimum salary								
$700 or more	....	3	....	1	....	....	....	....
600-699	....	5	....	....	....	....	....	....
500-599	....	7	1	1	....	....	....	1
400-499	1	10	....	3	....	2	....	4
300-399	1	3	2	19	1	3	....	10
200-299	1	16	10	49	3	14	....	9
100-199	....	6	3	20	1	13	1	4
Less than $100	....	4	....	....	....	....	....	1
No difference	2	12	2	10	1	4	1	6
Total number of schedules including the two classes	5	66	18	103	6	36	2	35
Median differential	$250	$269	$240	$244	$233	$207	....	$272
At maximum salary								
$1,500 or more	....	3	....	....	....	....	....	....
1,400-1,499	....	1	....	1	....	....	....	....
1,300-1,399	....	2	....	....	....	....	....	....
1,200-1,299	....	2	....	....	....	....	....	....
1,100-1,199	....	2	....	1	....	....	....	....
1,000-1,099	....	2	....	2	....	....	....	....
900- 999	....	4	....	3	....	....	....	....
800- 899	....	10	....	1	....	1	1	....
700- 799	....	10	....	1	....	1	....	....
600- 699	1	4	....	6	....	....	....	....
500- 599	....	6	2	7	1	3	....	6
400- 499	4	9	2	24	1	7	....	6
300- 399	....	8	4	22	1	10	....	9
200- 299	1	8	8	35	2	12	....	14
100- 199	....	3	2	2	1	7	1	3
Less than $100	....	....	....	1	....	....	....	1
Total number of schedules including the two classes	6	74	18	106	6	41	2	39
Median differential	$450	$675	$288	$368	$300	$315	....	$317

[a] If schedule provides salary classes for both 4 years' training *and* bachelor's degree or for 5 years' training *and* master's degree, salaries tabulated are for the bachelor's and master's degrees, respectively.

[b] In some schedules the next lower level is 6 years; in others, master's degree or 5 years.

[c] For population ranges, see Table 1, page 61.

TABLE 23.—SIZE OF INCREMENTS LEADING FROM MINIMUM TO MAXIMUM SALARY IN SINGLE-SALARY SCHEDULES REPORTED BY URBAN SCHOOL DISTRICTS OVER 100,000 IN POPULATION IN 1954-55[a]

Increment interval	18 Group I districts[b]			107 Group II districts[b]		
	Low[c]	Modal[c]	High[c]	Low[c]	Modal[c]	High[c]
1	2	3	4	5	6	7
$330 or more	....	....	1	....	....	3
320–329	....	....	....	....	....	....
310–319	....	....	....	....	....	....
300–309	....	1	1	1	2	2
290–299	....	....	....	....	....	....
280–289	....	....	....	....	....	....
270–279	....	....	....	....	....	1
260–269	....	....	....	....	....	1
250–259	....	1	1	....	1	3
240–249	....	....	....	....	....	....
230–239	....	....	....	....	....	....
220–229	....	....	....	....	1	2
210–219	....	....	....	....	....	....
200–209	6	9	9	11	19	29
190–199	....	....	....	1	3	3
180–189	1	1	....	3	5	7
170–179	1	1	1	2	1	2
160–169	....	1	1	4	7	2
150–159	....	1	1	9	19	17
140–149	....	1	2	....	....	1
130–139	2	1	....	1	2	5
120–129	....	....	....	9	11	7
110–119	....	1	1	5	3	4
100–109	7	....	....	27	18	12
90– 99	....	....	....	3	6	1
80– 89	1	....	....	4	2	2
70– 79	....	....	....	3	2	2
60– 69	....	....	....	3	1	....
50– 59	....	....	....	14	3	1
40– 49	....	....	....	1	....	....
30– 39	....	....	....	1	....	....
20– 29	....	....	....	3	1	....
10– 19	....	....	....	1	....	....
Less than $10	....	....	....	1	....	....
Total number of schedules	18	18	18	107	107	107
Median amount of increments	$135	$202	$203	$107	$152	$168

[a]Based on increments reported for the bachelor's degree (or 4-year) level of training.
[b]For population ranges, see Table 1, page 61.
[c]Tabulated in columns 2 and 5 are the lowest amounts in the increment patterns for the bachelor's degree in the various schedules; in columns 3 and 6 are tabulated the amounts which run most frequently thru each pattern; in columns 4 and 7 are the highest amounts.

TABLE 24.—TRENDS AND RELATIONSHIPS OF MEDIAN MINIMUM AND MEDIAN MAXIMUM SALARIES SCHEDULED FOR CLASSROOM TEACHERS, URBAN SCHOOL DISTRICTS OVER 100,000 IN POPULATION

Item	For classroom teachers with 4 years' preparation or bachelor's degree		For classroom teachers with 5 years' preparation or master's degree		For classroom teachers at highest level recognized, if higher than master's degree	
	Group I[a]	Group II[a]	Group I[a]	Group II[a]	Group I[a]	Group II[a]
1	2	3	4	5	6	7
Median of minimums						
1948–49	$2,550	$2,342	$2,800	$2,472	[b]	$2,817
1950–51	2,660	2,471	2,863	2,656	$3,083	2,893
1952–53	3,100	2,900	3,288	3,058	3,750	3,392
1954–55	3,400	3,194	3,533	3,375	3,864	3,700
Median of maximums						
1948–49	4,450	3,836	4,650	4,042	[b]	4,500
1950–51	4,700	4,158	4,890	4,439	5,350	4,988
1952–53	5,300	4,775	5,613	5,100	6,050	5,600
1954–55	5,540	5,035	5,800	5,344	6,214	5,917
Percent by which median maximum exceeds median minimum						
1948–49	74.5%	63.8%	66.1%	63.5%	....	59.7%
1950–51	76.7	68.3	70.8	67.1	73.5%	72.4
1952–53	71.0	64.7	70.7	66.8	61.3	65.1
1954–55	62.9	57.6	64.2	58.3	60.8	59.9
Percent of increase in median MINIMUM						
1948–59 to 1950–51	4.3%	5.5%	2.3%	7.4%	....	2.7%
1950–51 to 1952–53	16.5	17.4	14.8	15.1	21.6%	17.2
1952–53 to 1954–55	9.7	10.1	7.5	10.4	3.0	9.1
Percent of increase in median MAXIMUM						
1948–49 to 1950–51	5.6%	8.4%	5.2%	9.8%	....	10.8%
1950–51 to 1952–53	12.8	14.8	14.8	14.9	13.1%	12.3
1952–53 to 1954–55	4.5	5.4	3.3	4.8	2.7	5.7

[a]For population ranges, see Table 1, page 61.
[b]Fewer than five schedules; no median computed.

VI. Forms and Definitions Used in Collecting Data

To illustrate the method by which the study was made, part of one of the forms used in collecting figures is shown below. The form reproduced was sent to urban districts over 30,000 in population. Other pages of the inquiry provided spaces for reporting the salaries of principals, supervisors, clerks, and other school employees.

Teaching principals were defined as those doing some regular classroom teaching, while supervising principals were those giving full time to administration and supervision. Vice-principals, assistant principals, and deans were to be reported under these classifications only if the persons concerned devoted half time or more to administration or supervision.

The form sent to urban districts under 30,000 in population is similar to the one reproduced below except that the elementary-school teachers category was expanded to include kindergarten teachers, teachers of atypical classes, and teachers rated as assistant principals or viceprincipals in elementary schools. Similarly, the classifications of junior high-school teachers and high-school teachers were expanded to include teachers rated as heads of departments, and assistant principals or viceprincipals in these schools.

FIGURE I.—SAMPLE SECTION FROM QUESTIONNAIRE FORM

PART C. SALARIES PAID TO CLASSROOM TEACHERS AND OTHER SCHOOL EMPLOYEES, 1954-55

Be sure to read again the INSTRUCTIONS at the top of page 2

Salary groups All salaries should be in terms of annual salary including any emergency salary adjustments	Give the number of teachers whose salaries fall in each of the salary groups indicated below CLASSROOM TEACHERS (Include teachers of vocational and special subjects, and school librarians)									Give the number of employees whose salaries fall in each of the salary groups indicated below OTHER SCHOOL EMPLOYEES			
	Kindergarten teachers (Those teaching a full school day)	Elementary teachers (Also include assistant principals giving more than half time to classroom teaching.)	Teachers of atypical classes (ungraded rooms, subnormal groups, open-air classes, cardiac classes, etc.)	Junior-high school teachers when junior high school is a separate school organization	Teaching junior-high school department heads, deans, and assistant principals (those giving more than half time to classroom teaching)	High-school teachers (Include teachers in regular four-year high schools, senior high schools, and junior-senior high schools.)	Teaching high-school department heads, deans, and assistant principals (those giving more than half time to classroom teaching)	Junior college teachers when junior college is separate school organization (When combined with high school, report under high-school teachers.)	Full-time teachers in part-time or continuation schools and adult education	Full-time school nurses	Full-time attendance officers (Do not include director of attendance reported on page 3.)	Full-time stenographers, typists, and clerks in principals' offices	Full-time stenographers, typists, and clerks in offices of administrative and supervisory officers (Do not include secretaries reported on page 2.)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Below $1800													
1800-1899													
1900-1999													
2000-2099													
2100-2199													
5600-5799													
5800-5999													
6000-6199													
6200-6399													
6400-6599													
6600-7099													
7100-7599													
7600-8099													
8100-8599													
8600-9099													
9100 and over													
Totals													

Principles of Salary Scheduling

1. Minimum salaries should be high enough to attract well educated, promising young people into teaching.

2. Maximum salaries should be high enough to retain highly competent and professionally ambitious men and women in classroom teaching.

3. Equity of treatment to classroom teachers of like qualifications and experience is essential.

4. Annual increments should provide an orderly progress to the maximum salary.

5. The salary schedule should offer professional stimulation thru incentives in recognition of professional qualifications.

6. Salary schedules should be adjusted periodically, with due consideration for trends in earnings in other professions and for changes in the cost of living.

7. Salaries of professional school personnel other than classroom teachers should be scheduled in accordance with the principles that apply to classroom teachers, with suitable recognition of responsibilities and preparation for leadership.

8. There should be professional participation by classroom teachers in the development and administration of salary policies.—National Education Association, Research Division. "Professional Salaries for America's Teachers." *NEA News* 8: 3; March 26, 1954.

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FOREWORD

THE National Education Association is dedicated to the improvement of instruction for each child. We say it with such phrases from our *Platform* as "enriched curriculums" and "fertile experience." We do something about it thru our departments in various subjectmatter areas and at the different levels. We tell our fellow educators and our fellow citizens thru brochures, pamphlets, books, records, transcriptions, films, filmstrips —instructional materials all.

This present study by the Research Division concerns materials that are available from many different sources and are used in varying degrees in all the schools. Altho there are many types of instructional materials, the survey is concentrated primarily on audio-visual materials and the administration of audio-visual programs.

The day of incidental audio-visual education has passed. The emphasis now is on the improvement of instruction thru the most appropriate instructional materials. Despite inhibitions and inertia, the invitation to change cannot be ignored. Leading educators, classroom teachers, and supervisors agree that instructional materials assume their proper role in the hands of those who have developed a forward-looking philosophy of education.

The present survey could not have been completed without the cooperation of many persons—the director of audio-visual education, the superintendent of schools, an assistant superintendent of schools, the director of instruction, or someone else who knew each school system's efforts in this area. Our sincere thanks to each.

For the student who wishes to delve deeply into some of the problems of audio-visual education, much detail is provided in 41 tables. For the reader looking for the gist, five graphs show progress from 1946 to 1954 on such matters as organized departments of audio-visual education, amounts of audio-visual equipment and materials, use of materials, and financial support. The last section of this bulletin provides a short but important evaluation of progress as judged by those educators who participated in the study. Perhaps you would like to begin at the back. But whether you enter by the front door or the back, this bulletin has a message for you.

WILLIAM G. CARR, *Executive Secretary,*
National Education Association.

I. Introduction

In December 1946, the NEA Research Division reported the results of a survey of audio-visual education in city school systems for the 1945-46 school year.[1] That survey was undertaken in cooperation with the NEA Division of Audio-Visual Instructional Service in full recognition of the growing importance of audio-visual materials in teaching.

Similar to the 1946 study, this RESEARCH BULLETIN reports a second survey of audio-visual education. It, too, was made in cooperation with the NEA Division of Audio-Visual Instructional Service.

School Districts Included

The inquiry blank, which asked for data for the 1953-54 school year, was sent out in May 1954. It went to all the superintendents of schools in urban school districts with the suggestion that they pass the questionnaire on to the person in charge of the audio-visual program.

As used in the preceding paragraph and thruout this bulletin, *urban* has a special meaning. It is an adaptation by the NEA Research Division of the census of cities for the purpose of grouping school districts by population. Two main modifications are: (a) county-unit school districts are included as urban school districts when they contain a city of 30,000 or more population or when one-half or more of the population is in urban areas; and (b) town school districts are included when one-half or more of the population is in a city or cities located therein or when the town is located within the urban fringe areas of a large city.[2]

In addition to urban school district superintendents, a sample of rural school district officials were invited to participate. Since these rural returns were so incomplete, the results have not been reported.

Replies Grouped

Column 2 of Table 1 gives the limits of the six intervals into which the population of the urban school districts is divided. Each group is designated by a Roman numeral in column 1. These designations are used thruout the bulletin to facilitate the presentation.

Table 1 shows that replies were received from Group I school districts in the same proportion as there are Group I school districts in the total number. Replies from Groups II, III, and IV were received in slightly higher proportions than they are in the total. Replies from Groups V and VI were received in slightly lower proportions than they are in the total.

Of the 3843 urban school districts, 34 percent are included in this report. Replies ranged from a high of 78 percent of the Group I districts to a low of 24 percent of the Group VI districts. This response should reflect a reasonably accurate picture of audio-visual programs in urban school districts for the 1953-54 school year.

[1] National Education Association, Research Division. "Audio-Visual Education in City-School Systems." *Research Bulletin* 24: 131-70; December 1946. 25¢.

[2] For a discussion of all the modifications and of the development of the list of urban school districts see: National Education Association, Research Division. "Salaries and Salary Schedules of Urban School Employees, 1954-55." *Research Bulletin* 33: 59-87; April 1955. "Groupings of School Districts," p. 61.

TABLE 1.—NUMBER AND PERCENT OF URBAN SCHOOL DISTRICTS INCLUDED IN STUDY

Group number	Population range	Number and percent of urban school districts according to 1950 Census		Number and percent of urban school districts reporting		Percent replying
		Number	Percent	Number	Percent	
1	2	3	4	5	6	7
I	Over 500,000	18	1%	14	1%	78%
II	100,000 to 500,000	124	3	88	7	71
III	30,000 to 100,000	414	11	208	16	50
IV	10,000 to 30,000	1,211	31	455	35	38
V	5,000 to 10,000	1,222	32	340	26	28
VI	2,500 to 5,000	854	22	205	15	24
Total		3,843	100%	1,310	100%	34%

II. Administration of Audio-Visual Education

One of the main items discussed in this section is the degree of centralization of administration of the audio-visual program. In programs that may be regarded as centralized, the questions are focused on personnel. Then, regardless of the degree of centralization, questions were raised on whether certain audio-visual services are available to classroom teachers. A few such services are described in the latter part of this section.

Degree of Centralization

To determine the degree of centralization, audio-visual authorities were asked to check the one of four choices which best described their organization for the administration of the audio-visual program. The alternatives were: (a) a department of the school system; (b) central coordination, but not recognized as a formal department; (c) no central coordination, coordination within each school building; (d) no central or building coordination, each classroom teacher on his own.

Table 2 shows that 27 percent of the 1310 school districts replying to the question reported that they had formal departments of audio-visual education. Fifty-one percent reported central coordination of the program but no formal departmentalization—the biggest single group. Since the fourth choice was checked by only 3 percent, it was combined with the third choice in Table 2. Thus, 22 percent of the audio-visual programs were described as having no central coordination.

All the Group I districts, 84 percent of the Group II districts, and 48 percent of the Group III districts have departments of audio-visual education. The modal type of organization then shifts to central coordination without formal departments—51 percent of the Group IV districts, 62 percent of the Group V districts, and 64 percent of the Group VI districts reported it. In these three lower population groups are also substantial numbers of school districts without central coordination of their audio-visual programs.

On the single item of departmental status, figures for 1946 are available for comparison. Figure I shows that the percent of districts with formal departments increased from 16 in 1946 to 27 in 1954. A gain in the proportion of districts having departments of audio-visual education was evident in all groups except Group IV.[1]

In the present survey, urban school districts having departments were asked to give the titles of them. Most frequently they are known as the audio-visual education department, division, or bureau. A frequent variation in the title is that the word *aids* is used instead of *education*. Somewhat less frequently *audio* is dropped. Altho the designation of *materials center* is commonly used in current professional writings, as yet it has not crept extensively into organizational titles.

The individual who heads up the service is usually known as the director, sometimes as the coordinator, and occasionally as the supervisor.

[1] Groups I and II are combined in Figure I to agree with the grouping used in 1946.

Reference to the 1946 survey is not footnoted here or in subsequent pages since the full information on this source appears on page 93.

A word of caution should be given about the 1946-1954 comparisons. The total number of city school systems reporting in 1946 was 1037. The total number of urban school districts reporting in 1954 was 1310. The 1946 survey was of city school systems because the NEA Research Division had not yet developed the urban school district list. However, since the major component of the list is cities, the comparisons probably are reasonable for indicating broad trends.

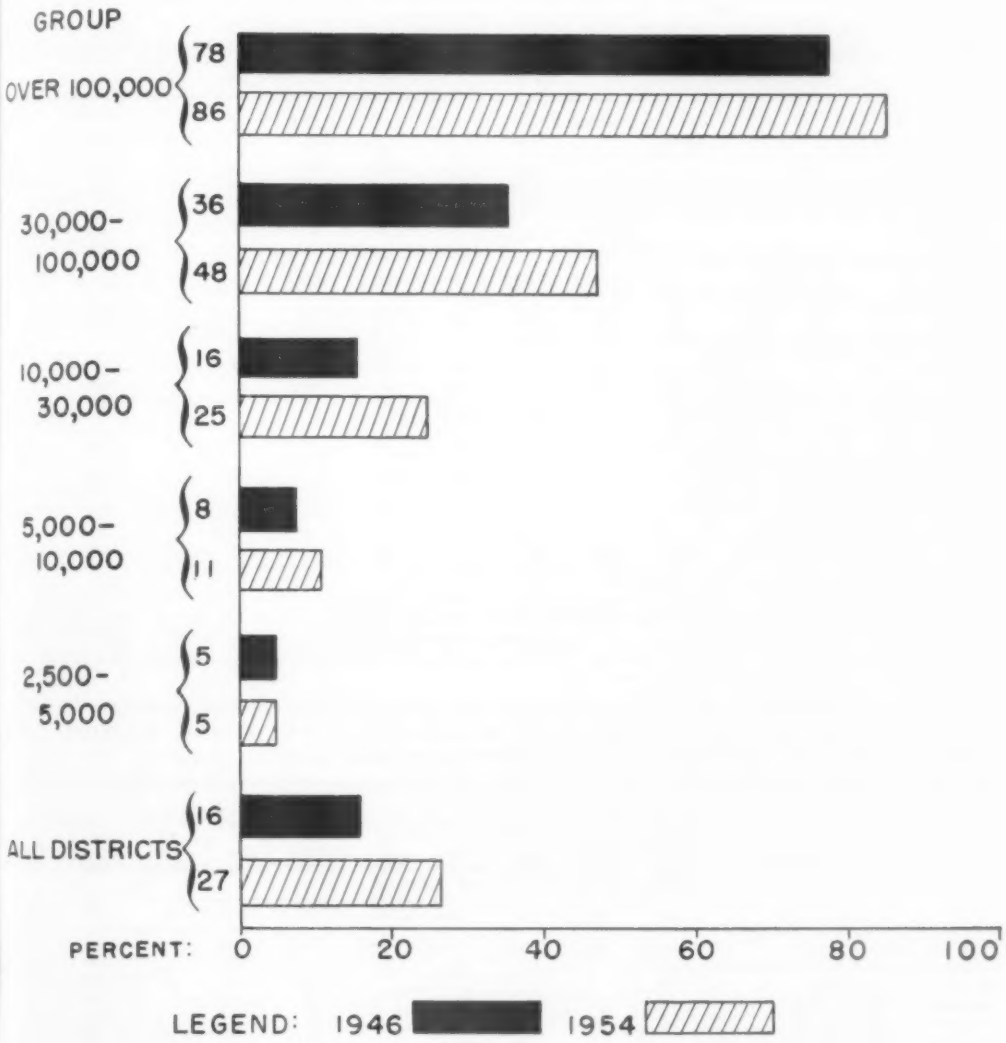
TABLE 2.—ADMINISTRATION OF AUDIO-VISUAL EDUCATION IN URBAN SCHOOL DISTRICTS

Type of organization	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts	
							Number	Percent
1	2	3	4	5	6	7	8	9
One or more departments of the school system	100%	84%	48%	25%	11%	5%	348	27%
Central coordination, but not a formal department	...	14	42	51	62	64	674	51
Without central coordination	...	2	10	24	27	31	288	22
	100%	100%	100%	100%	100%	100%	...	100%
Number of districts reporting	14	88	208	455	340	205	1,310	...

[a] For population ranges, see Table 1, page 93.

FIGURE I

PERCENT OF SCHOOL DISTRICTS HAVING AUDIO-VISUAL EDUCATION DEPARTMENTS



Beyond these general categories of titles of departments and heads of departments, several dozen variations can be found.

Some Aspects of the Position of Director in Centralized Programs

Urban school districts with centrally coordinated audio-visual programs made up two classifications: 348 districts having formal departments and 674 districts not having formal departments. Some items in the questionnaire applied only to these districts and to the person in charge of the program in them, hereafter called the director.

The director's job was considered from various aspects: some reasons why the director was selected for the position; to whom the director is responsible; the amount of time allowed for accomplishing the duties of the position; other duties of part-time directors; and the number of persons on the central office staff.

Why selected—Formal education in audio-visual work headed the list of reasons why the director was selected for the job—63 percent of the 979 districts reporting checked this item. Second in importance was practical experience in audio-visual work checked by 61 percent. Competence in using equipment was checked by 48 percent. See Table 3.

Altho not listed in the questionnaire, two reasons for selection were written in often

TABLE 3.—SOME REASONS FOR SELECTION OF THE DIRECTOR OF CENTRALLY COORDINATED AUDIO-VISUAL PROGRAMS

Reasons for selection	Districts having formal departments	Districts not having formal departments	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts	
									Number	Percent
1	2	3	4	5	6	7	8	9	10	11
Had some formal education in AV work	78%	56%	85%	72%	78%	65%	52%	53%	619	63%
Had some practical experience in AV work	78	52	92	73	73	64	51	47	599	61
Demonstrated competence as a classroom teacher in using AV materials and equipment	60	41	62	68	50	45	43	47	469	48
Knew how to operate projector	39	36	23	39	31	38	38	42	363	37
Could be freed for the necessary time	21	33	...	12	23	33	32	36	284	29
AV equipment (or material) was his hobby	30	23	31	36	26	26	20	23	246	25
Demonstrated administrative and organizational ability in other fields[b]	10	4	15	19	5	8	4	...	61	6
Administrative convenience (availability, location of person)[b]	2	7	...	1	8	5	7	2	48	5
Other reasons[c]	2	2	8	...	3	2	2	...	19	2
Number of districts reporting	338	641	13	78	182	335	238	133	979	...

[a] For population ranges, see Table 1, page 93.

[b] The main question was in the form of a checklist. These items were written in.

[c] Other reasons given were: willingness to serve and put in extra time; ability to work well and get along with others; passed test for position; chosen by person as an extracurriculum assignment; and economic need of person for additional income.

TABLE 4.—ADMINISTRATIVE OFFICER TO WHOM THE DIRECTOR OF AUDIO-VISUAL EDUCATION IS DIRECTLY RESPONSIBLE IN URBAN SCHOOL DISTRICTS WITH CENTRALLY COORDINATED PROGRAMS

Line of responsibility	Districts having formal departments	Districts not having formal departments	Group I districts[a b]	Group II districts[a c]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts	
									Number	Percent
1	2	3	4	5	6	7	8	9	10	11
Superintendent of schools	69%	82%	21%	53%	70%	85%	77%	87%	763	77%
Assistant or associate superintendent	17	2	72	33	13	2	1	...	69	7
Each building principal	1	7	...	...	...	3	8	12	47	5
Secondary-school principal	4	4	...	...	2	5	9	...	44	4
Director of instruction	7	2	7	12	11	1	1	...	38	4
Elementary-school principal	...	1	...	...	...	1	3	...	8	1
Supervisors	1	[d]	...	1	2	1	...	1	7	1
Coordinators	[d]	[d]	...	1	1	[d]	[d]	...	5	[d]
Miscellaneous[e]	1	2	...	...	1	2	1	...	12	1
Number of districts reporting	100% 346	100% 647	100% 14	100% 83	100% 184	100% 337	100% 239	100% 136	100% 993	100% ...

[a] For population ranges, see Table 1, page 93.

[b] One district having four full-time directors reported "assistant superintendent" for three directors and "business manager" for one director. One district having two full-time directors reported "director of instructional materials" for both directors. In the computation of percents the former district was counted as one director reporting to the superintendent and the latter was counted as one director reporting to the director of instruction.

[c] One district having three full-time directors reported "superintendent of schools" for all three directors. Three districts having two full-time directors reported "superintendent of schools" for both directors. One district having two full-time directors reported "assistant superintendent" for both directors. In the computation of percents each district was counted as having one director in the appropriate category.

[d] Less than one-half of 1 percent.

[e] Includes combinations of the above officers, the business manager, the board of education, and the curriculum consultant.

enough to be tabulated separately. Of the two, "the demonstration of administrative and organizational ability" was mentioned proportionately more often by districts having formal departments than by those not having formal departments; while the reverse was true of the other reason, "administrative convenience."

By school district size groups, the reasons for selection were checked in approximately the same order of frequency as the total.

To whom responsible—Table 4 shows that the director of audio-visual education is responsible to the superintendent of schools in 77 percent of the 993 districts reporting. In 346 districts having formal departments this proportion was 69 percent; and in 647 districts not having formal departments, 82 percent.

The second most frequent line of responsibility in districts having formal departments

TABLE 5.—AMOUNT OF SCHOOL TIME DEVOTED TO AUDIO-VISUAL WORK BY DIRECTORS IN URBAN SCHOOL DISTRICTS WITH CENTRALLY COORDINATED PROGRAMS

Amount of school time for audio-visual work	Districts having formal departments	Districts not having formal departments	Group I districts[a,b]	Group II districts[a,c]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts	
									Number	Percent
1	2	3	4	5	6	7	8	9	10	11
Full time	49%	3%	100%	70%	39%	12%	2%	...	187	19%
About 3/4 time	9	1	...	7	10	3	1	1%	39	4
About 2/3 time	1	[d]	...	1	1	...	...	...	3	[d]
About 1/2 time	17	10	...	11	16	19	7	5	122	13
About 1/3 time	3	[d]	...	...	1	1	2	1	12	1
1/4 time or less	21	86	...	11	33	65	88	93	613	63
	100%	100%	100%	100%	100%	100%	100%	100%	...	100%
Number of districts reporting	344	632	14	82	186	326	231	137	976	...

[a] For population ranges, see Table 1, page 93.
[b] One district reported four full-time directors, and one district reported two full-time directors. Thus, there were 18 full-time directors in 14 districts.
[c] One district reported three full-time directors, and four districts reported two full-time directors. Thus, there were 85 full-time directors in 57 districts.
[d] Less than one-half of 1 percent.

TABLE 6.—OTHER MAJOR DUTIES OF DIRECTORS WHO DEVOTE LESS THAN FULL TIME TO CENTRALLY COORDINATED AUDIO-VISUAL PROGRAMS[a]

Other major duties	Districts having formal departments	Districts not having formal departments	Group II districts[b]	Group III districts[b]	Group IV districts[b]	Group V districts[b]	Group VI districts[b]	All districts	
								Number	Percent
1	2	3	4	5	6	7	8	9	10
Classroom teachers:									
Science	27%	27%	...	16%	27%	34%	28%	210	27%
Social studies	4	8	...	5	7	8	8	54	7
Mathematics	6	4	...	1	5	3	10	36	5
Industrial arts	3	5	...	1	5	6	4	34	4
Elementary-school teachers	1	4	...	1	2	4	10	28	3
Miscellaneous	19	4	4%	5	8	9	7	61	8
Percent classroom teachers	60%	52%	4%	29%	54%	64%	67%	...	54%
Directors, coordinators, and supervisors of other fields	22%	18%	77%	47%	21%	6%	2%	150	19%
Elementary- and secondary-school principals	10	11	11	10	12	9	12	86	11
Librarians	8	9	4	9	4	13	14	72	9
Others[c]	...	10	4	5	9	8	5	53	7
	100%	100%	100%	100%	100%	100%	100%	...	100%
Number of districts reporting	173	611	26	113	290	222	133	784	...

[a] No directors were reported at less than full time for Group I districts.
[b] For population ranges, see Table 1, page 93.
[c] Others include assistant superintendents, and assistant elementary- and secondary-school principals.

was to an assistant or associate superintendent of schools as reported by 17 percent. In the districts not having formal departments, second place in frequency fell to the 7 percent of the directors who report to each building principal.

Directors in Group I districts usually report to an assistant or associate superintendent of schools. In the other five groups of districts the line of responsibility is usually to the superintendent.

Time for the job—Table 5 shows that 19 percent of 976 urban school districts with centrally coordinated audio-visual programs had full-time directors in 1954. In 63 percent, the director had one-fourth or less of his school time for audio-visual work.

All Group I districts had full-time directors and 70 percent of the Group II districts had full-time directors. In Group III districts the major divisions on the basis of time for the job were: 39 percent, full-time; 10 percent, about three-fourths time; 16 percent, about one-half time; and 33 percent, one-fourth time or less. One-fourth time or less was reported for 65 percent of the Group IV districts, 88 percent of the Group V districts, and 93 percent of the Group VI districts.

In districts having formal departments of audio-visual education, the major divisions of time allocated to directors were: 49 percent, full-time; 9 percent, about three-fourths time; 17 percent, about one-half time; and 21 percent, one-fourth time or less. Of districts not having formal departments, 86 percent indicated one-fourth time or less for their directors.

On this item of time for the job, information is available for making a comparison between 1946 and 1954 in the one classification of districts having formal departments. By combining certain time categories in Table 5, two-thirds with three-fourths time and one-third with one-fourth time or less, the results for 344 urban school districts in 1954 and 164 city school systems in 1946 are:

Time	*1946*	*1954*
Full	38%	49%
About ¾	5	10
About ½	33	17
About ¼	24	24
	100%	100%

These figures show progress in gaining more working time in audio-visual education for directors. By 1954, relatively speaking, 16 percent of them had moved from the one-half classification to the two upper classifications. That is, 5 percent at three-fourths time in 1946 had become 10 percent in 1954, and 38 percent at full time in 1946 had become 49 percent in 1954.

Other duties of part-time directors—Over half of the part-time directors had classroom teaching as their other major duty. About one-fifth of them had another department to direct. About one-tenth of them were either elementary-school or secondary-school principals and another tenth of them were librarians. See Table 6 for these facts.

Seventy-seven percent of Group II districts reported the second duty as another directorship. This combination was also true of 47 percent of Group III districts. The prevailing combination in the three smaller population groups was audio-visual education with classroom teaching. This was true in 54 percent of Group IV districts, 64 percent of Group V districts, and 67 percent of Group VI districts.

TABLE 7.—STAFF ASSISTANTS TO DIRECTORS OF CENTRALLY COORDINATED AUDIO-VISUAL PROGRAMS

Type of assistant	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts	
							Number	Percent
1	2	3	4	5	6	7	8	9
None	...	7%	34%	67%	84%	84%	626	62%
Part-time only	...	11	40	28	16	16	240	24
Full-time[b]	100%	82	26	5	[c]	...	148	14
	100%	100%	100%	100%	100%	100%	.....	100%
Number of districts reporting	13	85	186	342	247	141	1,014	...

[a] For population ranges, see Table 1, page 93.
[b] These districts also employ some part-time help.
[c] Less than one-half of 1 percent.

In half of the districts where the part-time director was also a classroom teacher, his major field was science. This particular combination, science teacher and audio-visual education director, was also prominent in the 1946 survey.

Help for directors—The last question that applied exclusively to the school districts with centrally coordinated audio-visual programs asked for the number of full-time and part-time staff assistants to the director. Table 7 shows that no staff assistants were employed in 62 percent of the 1014 districts reporting, 24 percent employed part-time help only, and 14 percent employed full-time help. Many of the districts that employed full-time assistants also employed part-time assistants.

The employment of full-time assistants was concentrated in Group I and II districts—all Group I districts and 82 percent of Group II districts.

An idea of the size of full-time staffs and of their positions can be gained from Table 8. In Group I districts, not counting the director, the average size of the staff was 14. Of these, four were professional personnel, five were technical personnel, and five were stenographic and clerical personnel. In Group II districts the average size of the staff was four, excluding the director. Of these, one was professional, one was technical, and two were stenographic and clerical personnel.

Some Audio-Visual Services Available in All Schools

Regardless of the type of organization, certain kinds of audio-visual services may be available in all school districts. The final questions that are answered in this section could apply equally as well to those school districts with centralized coordination of audio-visual services as they could to those districts not having centralized coordination.

The main question was put in the form of a checklist of types of services, and each audio-visual authority was requested to check *all* that applied to his program. Table 9 shows the frequency that each type of service was checked.

The five highest ranking services according to 1301 replies were: obtaining free and rental materials on request; consulting with individual classroom teachers on using audio-visual materials; keeping classroom teachers informed of available materials and new acquisitions; selecting and purchasing audio-visual materials; and providing operators and equipment for school use.

Keeping classroom teachers informed of available materials and new acquisitions was the only service ranking among the five highest regardless of how the replies were tabulated—by type of organization or by size of population.

In the new field of television only five districts reported the direction of a school-operated television station. However, the number of districts that reported producing or assisting in producing educational programs on commercial television stations was 101.

Actually, determining the full importance of each of these services would require a detailed examination of them. But because of the great number of possibilities and the limitations of time and resources, the survey included additional scrutiny of only two—the distribution of catalogs of available audio-visual materials and the means and frequency of delivery of materials.

Distribution of catalogs—Lists or catalogs of audio-visual materials are one means by which classroom teachers can be informed of those available within the school system. Table 10 shows that 95 percent of the districts reporting provided such catalogs of the materials.

Ninety-eight percent of the districts that were classed as formally departmentalized for audio-visual services provided catalogs, and 91 percent of the districts that had no central coordination of audio-visual education had

TABLE 8.—AVERAGE NUMBER OF FULL-TIME STAFF ASSISTANTS IN GROUP I AND GROUP II URBAN SCHOOL DISTRICTS [a]

Type of assistant	In 13 Group I districts [b]		In 85 Group II districts [b]	
	Total number reported	Average per district	Total number reported	Average per district
1	2	3	4	5
Professional	56	4	60	1
Technical	71	5	73	1
Stenographic and clerical	62	5	130	2

[a] Only 48 of 186 Group III districts reported full-time staff assistants, and fewer or none were reported by the other three groups of districts. Therefore, the analysis by averages is reported here for only the two groups of higher population size.
[b] For population ranges, see Table 1, page 93.

catalogs available. By population 100 percent of Group I districts provided catalogs, and then such provision decreased to 94 percent in Group VI districts.

These catalogs of materials were distributed to elementary-school principals in 69 percent of the districts reporting, to all classroom teachers in 68 percent, and to secondary-school

TABLE 9.—TYPES OF SERVICES PROVIDED FOR AUDIO-VISUAL EDUCATION

Type of service	Central coordination		Districts not having central coordination	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	Total frequency of mention	
	Districts having formal departments	Districts not having formal departments								Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12
Obtaining free and rental materials for teachers upon request	93%	88%	80%	57%	85%	92%	89%	87%	84%	1,138	88%
Consulting with individual classroom teachers on use of AV materials	96	83	74	93	97	91	85	80	78	1,100	85
Keeping classroom teachers informed of available materials and new acquisitions	97	82	67	100	100	93	84	78	69	1,076	83
Selecting and purchasing AV materials	95	74	65	93	99	90	79	71	61	1,011	78
Providing operators and equipment for school use	70	77	73	57	40	62	79	82	80	965	74
Keeping equipment and materials in repair	91	72	58	93	84	83	74	71	65	962	74
Classifying and storing materials	93	71	53	100	98	86	72	67	60	951	73
Training operators of AV equipment	87	70	64	100	72	73	76	72	67	950	73
Selecting and purchasing AV equipment	94	63	61	100	94	90	66	69	52	921	71
Arranging previews on AV materials	93	67	52	100	97	94	74	54	53	918	71
Assisting curriculum committees on appropriate AV materials for instruction	77	52	40	100	93	81	54	44	34	726	56
Providing delivery and pickup service to schools	81	46	31	93	86	76	52	39	32	679	52
Providing operators and equipment for community use	60	52	41	43	35	50	56	54	48	670	52
Assisting in workshops for classroom teachers on how to use AV materials and equipment	71	43	27	93	90	69	44	38	26	610	47
Helping classroom teachers and students with the production of simple teaching materials	68	34	30	86	75	61	43	28	28	548	42
Photographing significant school activities	47	21	20	64	58	41	26	19	17	359	28
Assisting classroom teachers in planning field trips	37	19	27	64	43	38	24	19	19	335	26
Producing AV materials for the classroom	46	19	13	64	55	39	21	16	18	321	25
Assisting in producing radio programs (commercial stations)	30	12	11	43	39	26	17	11	5	218	17
Assisting in producing TV programs (commercial stations)	18	4	3	43	40	14	4	2	3	101	8
Directing school-operated radio station	6	[b]	1	21	7	1	2	1	1	26	2
Directing school-operated TV station	1	...	[b]	14	1	1	...	[b]	...	5	[b]
Others[c]	5	...	...	21	7	2	1	...	...	17	1
Number of districts reporting	348	665	288	14	87	208	452	336	204	1,301	..

[a] For population ranges, see Table 1, page 93.
[b] Less than one-half of 1 percent.
[c] Others include offering of preservice AV classes in college, assistance in planning and equipping school buildings for AV use, research work, training of building coordinators, and AV public relations work.

TABLE 10.—DISTRIBUTION OF LISTS OR CATALOGS OF AUDIO-VISUAL MATERIALS AVAILABLE FOR CLASSROOM USE

Items	Central coordination		Districts not having central coordination	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts	
	Districts having formal departments	Districts not having formal departments								Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12
Districts having lists or catalogs	98%	95%	91%	100%	99%	95%	95%	95%	94%	1,237	95%
Distribution of lists or catalogs in districts having them:											
To elementary-school principals	73	64	75	71	83	76	68	70	54	850	69
To all classroom teachers	76	69	56	43	61	69	70	71	63	842	68
To secondary-school principals	67	56	66	71	83	69	57	61	51	755	61
To AV coordinator	70	53	26	64	79	69	52	43	38	644	52
To school library	54	46	43	50	67	59	44	45	39	588	48
To supervisor	56	35	14	50	78	58	37	23	15	451	37
Others[b]	6	4	2	...	7	8	5	1	2	50	4
Number of districts reporting	348	669	286	14	88	206	452	338	205	1,303	...

[a] For population ranges, see Table 1, page 93.
[b] Others include superintendents of schools, department heads, boards of education, materials centers, and parent-teacher associations.

TABLE 11.—FREQUENCY OF AUDIO-VISUAL MATERIALS DELIVERY AND PICKUP SERVICE IN DISTRICTS PROVIDING SUCH SERVICE

Frequency	Central coordination		Districts not having central coordination	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts	
	Districts having formal departments	Districts not having formal departments								Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12
Daily	41%	35%	31%	15%	38%	40%	38%	30%	53%	195	37%
Weekly	27	25	33	62	26	33	20	30	12	139	27
Two or three times a week	22	15	9	23	35	19	18	6	3	92	18
As necessary	8	21	18	...	...	7	17	31	32	76	15
Others[b]	2	4	9	...	1	1	7	3	...	18	3
	100%	100%	100%	100%	100%	100%	100%	100%	100%	...	100%
Number of districts reporting	248	227	45	13	72	138	176	87	34	520	...

[a] For population ranges, see Table 1, page 93.
[b] Others are as follows: two or three times daily, every two weeks, four times a week, and monthly.

principals in 61 percent. The same relative prominence of the distribution points was true in Groups IV, V, and VI districts.

In districts having a formal audio-visual department and in Group I, II, and III districts the audio-visual coordinator ranked third as a point of distribution for catalogs.

Frequency of delivery—Most classroom teachers would say that ready availability is a condition conducive to more appropriate use of audio-visual materials.

In a space provided for writing in the answer, of 527 districts reporting, 76 percent used truck or car for delivering audio-visual materials; 16 percent used U. S. mail; and 8 percent used a combination of car and mail.

The frequency of delivery to each school in 520 reporting districts was: 37 percent, daily; 27 percent, weekly; 18 percent, two or three times a week; and 15 percent, as necessary. See Table 11 for these facts.

The tabulation by population groups showed that the modal frequency of delivery was weekly in Group I districts; daily in Group II, III, IV, and VI districts; and as necessary in Group V districts.

III. Physical Facilities, Equipment, and Materials

The subjectmatter of this section is closely related to the subjectmatter of the preceding section, but for purposes of presentation the data on facilities required this separate treatment. In this section, the three main topics under consideration are: (a) physical plant facilities, (b) audio-visual equipment, and (c) audio-visual materials.

Physical Plant Facilities

The data on physical plant facilities are further subdivided into discussions of selected special facilities and of the degree to which instructional spaces, particularly classrooms, are adapted to the use of audio-visual materials.

Selected special facilities—Centrally coordinated programs of audio-visual education almost imply that certain physical facilities are available, such as audio-visual materials centers. Table 12 shows that 65 percent of the 1019 urban school districts reporting had audio-visual materials centers. This group, when divided between districts with formal departments and districts without formal departments, was 90 percent and 51 percent respectively.

The tabulation by population of the districts reporting showed that all Group I and II districts, 83 percent of the Group III districts, 65 percent of the Group IV districts, 51 percent of the Group V districts, and 38 percent of the Group VI districts had audio-visual materials centers.

While other facilities, such as photographic darkrooms, were reported fairly frequently by the larger school districts, the other noteworthy item in Table 12 was that one-fourth of the urban school districts reported no special facilities for audio-visual education. This was true in the lower four population groups for 11 percent of Group III districts to 45 percent of Group VI districts. It was also more often characteristic of districts without formal departments (33 percent) than it was of districts with departments (7 percent).

Space for instruction—For years there has been considerable criticism of the unwise use of audio-visual materials. Such criticism has been two-fold—improper use of films and improper use of auditoriums. This survey attempted to get at the space problem with a question on policy regarding instructional use whether primarily in classrooms or in auditoriums. Sixty-eight percent of the 1295 districts reporting said that audio-visual materials were used primarily in their classrooms, and 32 percent reported a combination of classroom and auditorium use.

The questionnaire also called for a rating of the adaptation of classrooms and auditoriums for the use of projected materials on a three-degree scale based on such considerations as room darkening, electrical outlets, and acoustics. These ratings were to be given for both elementary-school and secondary-school facilities.

Audio-visual workers said that only 25 percent of their elementary-school classrooms were well adapted for the use of audio-visual materials, 41 percent were poorly adapted, and 34

TABLE 12.—AVAILABILITY OF CERTAIN PHYSICAL PLANT FACILITIES FOR AUDIO-VISUAL EDUCATION IN URBAN SCHOOL DISTRICTS WITH CENTRALLY COORDINATED AUDIO-VISUAL PROGRAMS

Physical plant facilities available	Districts having formal departments	Districts not having formal departments	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts	
									Number	Percent
1	2	3	4	5	6	7	8	9	10	11
AV materials centers	90%	51%	100%	100%	83%	65%	51%	38%	657	65%
No facilities of any type	7	33	...	...	11	22	33	45	244	24
Photographic darkrooms	35	17	57	41	29	24	17	13	239	24
Radio studios	14	4	29	21	11	6	3	1	73	7
TV studios	2	[b]	14	5	1	...	...	...	8	1
Multiple-use facilities and others[c]	15	17	...	21	11	19	15	17	164	16
Number of districts reporting	348	671	14	85	187	345	247	141	1,019	

[a] For population ranges, see Table 1, page 93.
[b] Less than one-half of 1 percent.
[c] Others mentioned are: projection and preview rooms, recording rooms, office space, workrooms, equipment repair shop, museum, and planetarium.

percent were not adapted. See Table 13 for these facts.

In the Group I districts reporting, only 17 percent of the elementary-school classrooms were rated as well adapted, while 58 percent were rated as poorly adapted. In the other groups the ratings were more nearly equally divided among the three possible degrees of adaptation.

Altho not shown in any of the tables, 986 audio-visual educators rated 72 percent of the 5517 elementary-school auditoriums as well adapted, 20 percent as poorly adapted, and 8 percent as not adapted. Perhaps the appointments of the auditoriums suggest goals to be sought in equipping classrooms.

Table 14 shows that 26 percent of the secondary-school classrooms were rated as well adapted for the use of audio-visual materials; 37 percent, poorly adapted; and 37 percent, not adapted. When the ratings were tabulated by type of organization, the proportions remained about the same in each classification as they were for all classrooms together.

In the Group I districts reporting, again only 17 percent of the secondary-school classrooms were rated as well adapted, while divisions among the other groups were more nearly equal. Thus, the ratings of secondary-school classrooms fell about the same as those for elmentary-school classrooms.

Secondary-school auditoriums were judged to be well adapted in higher proportions than were elementary-school auditoriums. Eighty-three percent of the 1922 auditoriums in 982 school districts were rated as well adapted, 13 percent as poorly adapted, and 4 percent as not adapted.

Thus, of all types of instructional spaces, secondary-school auditoriums were said to be

TABLE 13.—ADAPTION OF ELEMENTARY-SCHOOL CLASSROOMS FOR USING AUDIO-VISUAL MATERIALS

Degree of adaption	Central coordination		Districts not having central coordination	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All classrooms	
	Districts having formal departments	Districts not having formal departments								Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12
Well adapted	25%	26%	28%	17%	27%	28%	30%	25%	32%	24,461	25%
Poorly adapted	41	41	36	58	38	32	33	45	36	38,967	41
Not adapted	34	33	36	25	35	40	37	30	32	32,458	34
	100%	100%	100%	100%	100%	100%	100%	100%	100%	...	00%
Number of classrooms reported	62,479	25,861	7,546	22,097	26,215	21,736	17,607	5,766	2,465	95,886	...
Number of districts reporting	189	424	163	6	44	132	282	186	126	...	...

[a] For population ranges, see Table 1, page 93.

TABLE 14.—ADAPTION OF SECONDARY-SCHOOL CLASSROOMS FOR USING AUDIO-VISUAL MATERIALS

Degree of adaption	Central coordination		Districts not having central coordination	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All classrooms	
	Districts having formal departments	Districts not having formal departments								Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12
Well adapted	26%	24%	25%	17%	29%	27%	27%	23%	23%	15,026	26%
Poorly adapted	37	37	37	54	32	30	32	45	44	21,930	37
Not adapted	37	39	38	29	39	43	41	32	33	22,074	37
	100%	100%	100%	100%	100%	100%	100%	100%	100%	...	100%
Number of classrooms reported	37,647	16,039	5,344	11,667	16,816	13,432	11,674	3,769	1,672	59,030	...
Number of districts reporting	189	420	170	6	44	126	284	196	123	...	...

[a] For population ranges, see Table 1, page 93.

well adapted in the highest proportion. The range of facilities well adapted for the projection of audio-visual materials was from 25 percent of the elementary-school classrooms to 83 percent of the secondary-school auditoriums.

Audio-Visual Equipment

Two questions in the survey concerned audio-visual equipment: the amount of equipment available in each school district and the responsibility for the selection of equipment for purchase.

Amounts of equipment—While it was impossible to include all the items of audio-visual equipment in the survey, certain facts about many items are summarized in Table 15.

Almost all school districts had motion picture projectors; some type of slide projector, filmstrip projector, or a combination of the two; and some type of radio receiver. A few items apparently were not so readily available. Only 24 percent of the school districts reported large transparency overhead projectors, and 27 percent reported television receivers or combinations.

It is fairly difficult to get a count of all items of audio-visual equipment that are available because in many communities schools acquire such equipment by purchase with the proceeds from special fund-raising projects and by gifts from organizations and individuals. This survey, in trying to cover the several possible contingencies, requested a count by items of audio-visual equipment owned by school districts plus items owned by individual schools. But even with this attempt the chances are that the reported amounts present a conservative picture of equipment actually available to the schools included in the survey.

Columns 6 and 7 of Table 15 show the percents of the aggregate number of each type of equipment owned by the district and by individual schools. Seventy percent or more of the equipment was district-owned for 13 of the 17 types listed. The highest percent owned by individual schools was television receivers at 43 percent, disregarding television combinations because of their low aggregate number.

Column 8 of Table 15 shows the pieces of each type of equipment per 10,000 students enrolled. The primary purpose of this ratio was to provide a basis for comparing quantities available. Beyond this purpose the ratio has no significance. However, to come closer to

TABLE 15.—AUDIO-VISUAL EQUIPMENT AVAILABLE

Type	Number of districts reporting on question	Districts reporting item available[a]		Pieces of equipment available			
		Number	Percent	Number	Percent owned by district	Percent owned by individual schools	Number per 10,000 students
1	2	3	4	5	6	7	8
16 mm sound motion picture projectors	1,293	1,292	100%	21,529	77%	23%	24
16 mm silent motion picture projectors	1,293	409	32	2,706	87	13	3
Slide projectors	1,293	777	60	8,805	83	17	10
Filmstrip projectors	1,295	717	55	6,018	79	21	7
Combination slide and filmstrip projectors	1,295	994	77	17,755	79	21	20
Large transparency overhead projectors	1,295	307	24	841	86	14	1
Microprojectors	1,294	580	45	1,228	82	18	1
Opaque projectors	1,295	1,050	81	6,722	77	23	7
Projection screens	1,287	1,234	96	37,435	81	20	42
Recording machines	1,288	1,170	91	15,777	74	26	18
Radio receivers	1,268	963	76	28,970	65	35	34
Radio combinations	1,279	225	18	2,561	61	39	3
TV receivers	1,288	316	25	1,577	57	43	2
TV combinations	1,287	20	2	70	26	74	—
Portable public address systems	1,287	1,033	80	4,444	73	27	5
Still cameras	1,285	677	53	1,757	71	29	2
Motion picture cameras	1,290	562	44	813	77	23	1

[a] Reports from a number of districts were incomplete for this question. In most of these they exclude equipment owned by individual schools. The number of districts giving incomplete information for each type of equipment is as follows: sound motion picture projectors, 77 districts; silent motion picture projectors, 79 districts; slide projectors, 80 districts; filmstrip projectors, 80 districts; combinaion slide and filmstrip projectors, 80 districts; large transparency overhead projectors, 80 districts; microprojectors, 81 districts; opaque projectors, 79 districts; projection screens, 81 districts; recording machines, 81 districts; radio receivers, 85 districts; radio combinations, 81 districts; TV receivers, 79 districts; TV combinations, 80 districts; portable public address systems, 81 districts; still cameras, 84 districts; and motion picture cameras, 85 districts.

TABLE 16.—AUDIO-VISUAL EQUIPMENT REPORTED AVAILABLE PER 10,000 STUDENTS ENROLLED

Type of equipment	Central coordination		Districts not having central coordination	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts
	Districts having formal departments	Districts not having formal departments								
1	2	3	4	5	6	7	8	9	10	11
Radio receivers	39	33	38	42	35	34	33	43	48	37
Slide and filmstrip projectors	34	39	43	33	32	39	43	47	48	36
16 mm sound motion picture projectors	23	27	26	21	23	27	27	27	26	24
Recording machines	18	17	18	7	23	27	18	19	20	18

[a] For population ranges, see Table 1, page 93.

the conditions under which a certain piece of equipment is available, any of the numbers in Column 8 can be quickly converted into the number of students per item. For example, there was approximately one 16 mm sound motion picture projector for 415 students.

In Table 16, several of the more popular items in amounts per 10,000 students are shown as they were distributed by form of organization of the audio-visual program and by the population of the urban school districts. Because they are closely related, slide projectors, filmstrip projectors, and combination slide and filmstrip projectors were grouped together. For the same reason radio receivers and radio combinations were grouped together.

Two of the four items of equipment had similar patterns of distribution; that is, the number of sound motion picture projectors and of slide and filmstrip projectors per 10,000 students was higher in districts without formal audio-visual departments and districts without central coordination of the audio-visual program than it was in districts having formal audio-visual departments. Relatively fewer pieces of equipment of these two types were available per 10,000 students in the larger districts, and relatively more were available in

FIGURE II

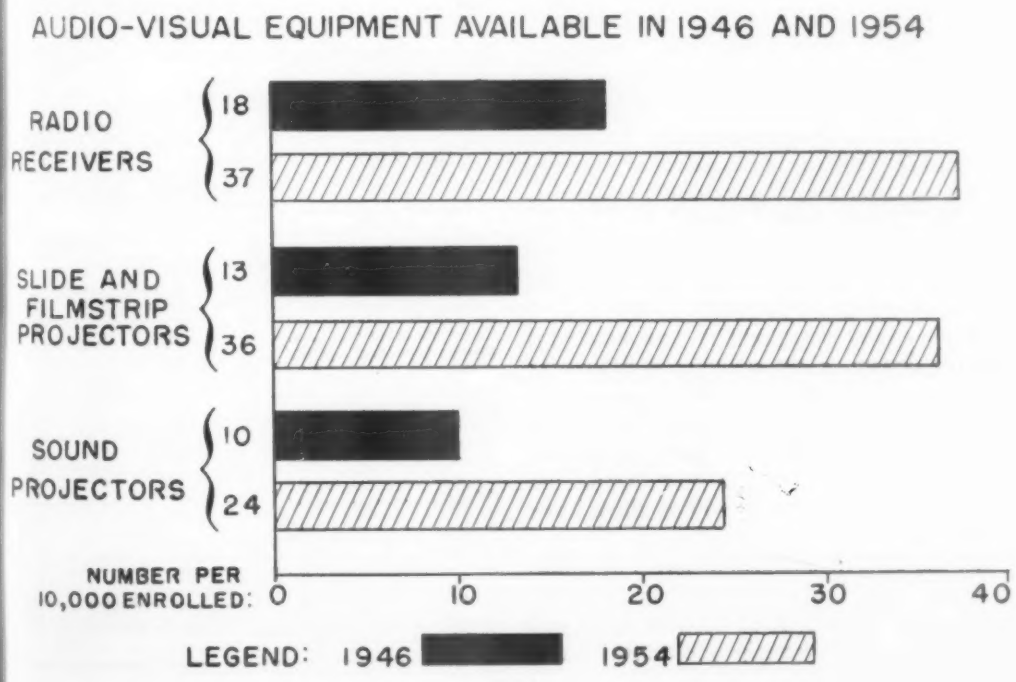


TABLE 17.—PERSONS OR GROUPS WHO USUALLY ASSIST IN THE SELECTION OF AUDIO-VISUAL EQUIPMENT

Type of position	Central coordination		Districts not having central coordination	All districts
	Districts having formal departments	Districts not having formal departments		
1	2	3	4	5
Superintendent or assistant superintendent	35%	46%	49%	44%
AV staff	77	50	...	47
Classroom teachers	62	67	68	66
Elementary-school principals	60	64	77	65
Secondary-school principals	54	57	68	58
Instructional supervisors	38	28	19	28
Curriculum specialists	21	11	5	12
School library staff	12	23	23	20
Representative staff committee	20	16	9	16
Others[a]	2	1	1	2
Number of districts reporting	330	641	265	1,236

[a] Others include business managers or purchasing officers, building AV coordinators, department heads, members of boards of education, and lay committees.

the smaller districts. This pattern comes about because a given item of equipment serves a smaller number of students in small communities.

Recording machines were fairly evenly distributed when analyzed by the organization of the program and by the size of the district with the exception that Group I districts had relatively less than half that in any other group. The distribution of radio receivers was irregular: 39 per 10,000 students in districts having formal departments, 33 per 10,000 in districts not having formal departments, and 38 per 10,000 in districts without central coordination. Similar fluctuations were true among the population groups of districts.

In an earlier paragraph it was mentioned that the figures on the amounts of equipment available in 1954 were probably conservative. In 1946, similar figures were also thought to be conservative. Within these limitations Figure II shows what the broad trend has been over the eight-year period on three items of equipment.

On the basis of numbers of pieces of equipment per 10,000 students enrolled, radio receivers more than doubled between 1946 and 1954, slide and filmstrip projectors nearly tripled, and 16 mm sound motion picture projectors increased nearly two and one-half times.

Responsibility for purchasing equipment—Two aspects of the purchasing of equipment are: (a) the preliminary activities of assisting in selecting the equipment, and (b) the location of final responsibility for authorizing the purchase. Commonly, several persons take part in the process, particularly in assisting in the selection. The question on the survey that was directed at this part of the audio-visual program was a checklist of positions with instructions to check all the usual participants.

Table 17 shows that of the 1236 urban school districts reporting, classroom teachers assisted in 66 percent; elementary-school principals, in 65 percent; secondary-school principals, in 58 percent; the audio-visual staff in 47 percent; the superintendent or assistant superintendent, in 44 percent; and to a lesser extent, a variety of others.

Among the districts with formal departments the audio-visual staff was mentioned most often as assisting in the selection of audio-visual equipment. Among districts having central coordination but without formal departments, classroom teachers were mentioned most often. Among districts without central coordi-

TABLE 18.—PERSONS OR GROUPS WHO USUALLY HAVE FINAL RESPONSIBILITY IN THE SELECTION OF AUDIO-VISUAL EQUIPMENT

Type of position	Central coordination		Districts not having central coordination	All districts
	Districts having formal departments	Districts not having formal departments		
1	2	3	4	5
Superintendent or assistant superintendent	56%	83%	90%	77%
AV staff	67	19	...	28
Classroom teachers	3	6	10	6
Elementary-school principals	11	13	27	16
Secondary-school principals	11	15	22	16
Instructional supervisors	3	4	2	3
Curriculum specialists	2	2	1	2
School library staff	[a]	2	3	2
Representative staff committee	3	3	2	3
Others[b]	5	2	3	3
Number of districts reporting	333	634	268	1,235

[a] Less than one-half of 1 percent.

[b] Others include members of boards of education, business managers or purchasing officers, building AV coordinators, and special subject supervisors.

nation, elementary-school principals were mentioned most often.

Final responsibility for the selection of audio-visual equipment was not as widely distributed among the different persons or groups as was the opportunity of assisting in the selection. In 77 percent of all urban school districts reporting, final responsibility rested with the superintendent or the assistant superintendent. See Table 18.

In districts having formal departments the most often mentioned location of final responsibility was the audio-visual staff. In districts centrally coordinated but not having formal departments and in districts without central coordination, final responsibility was most often with the superintendent of schools.

Audio-Visual Materials

The two questions on audio-visual materials of instruction closely paralleled the questions on equipment. They, too, were on amounts of materials and on the location of responsibility for assistance in selecting materials and for giving final approval on those selected.

Amounts of materials—Fourteen different kinds of materials were listed and audio-visual authorities were asked to fill in the amounts available. The list did not include every kind of instructional material that classroom teachers use, especially those for particular subjects, but it did include representative types of projected materials and representative types of materials for exhibits and demonstrations.

The data on amounts of materials are summarized in Table 19. As with equipment, the figures probably are conservative for the districts included in the survey because of the materials that classroom teachers and organizations bring to individual schools.

Column 4 of Table 19 shows the percent of urban school districts that reported each item available. Filmstrips were mentioned by 99 percent of the districts reporting. Following closely were sound films mentioned by 94 percent; globes, by 88 percent; and sets of wall maps, by 86 percent.

In general, for the several items on which the data were comparable, the percent of districts that reported them available was either about the same in 1954 as it was in 1946 or higher. Thus, 90 percent reported filmstrips in 1946 and 99 percent in 1954, but 95 percent reported sound films in 1946 and 94 percent in 1954, and 63 percent reported disc recordings in 1946 and 67 percent in 1954.

Of the aggregate number of the different kinds of materials available, from three-fifths to three-fourths were reported as owned by the district with the exception of sound films—three-fourths of the sound films were rented. Of all the ways of obtaining the materials listed in Table 19, renting was an important means for sound films only.

TABLE 19.—AUDIO-VISUAL MATERIALS AVAILABLE

Type of material	Number of districts reporting on question	Districts reporting item available[a]		Materials available				
		Number	Percent	Number	Percent owned by district	Percent borrowed or rented	Percent owned by individual schools	Number per 10,000 students
1	2	3	4	5	6	7	8	9
Sound films (titles)	1,079	1,017	94%	476,441	24%	75%	1%	566
Silent films (titles)	1,087	454	42	17,827	58	31	11	21
Filmstrips (titles)	1,093	1,084	99	665,330	68	7	26	800
Slide sets	1,045	691	66	116,675	66	6	28	146
Wire and tape recordings	1,006	675	67	34,332	74	12	14	49
Disc recordings	1,010	677	67	341,478	60	2	38	498
Stereograph sets	1,047	249	24	13,731	63	5	32	19
Demonstration kits	1,040	398	38	7,492	64	11	25	12
Kits of slide-making materials	1,043	481	46	3,011	86	1	12	5
Sets of mounted pictures	956	506	53	405,226	72	8	20	742
Sets of wall maps	936	806	86	62,919	70	1	29	142
Globes	947	830	88	33,625	71	1	28	73
Models, mockups	958	403	42	17,474	73	4	22	34
Exhibits, dioramas	965	320	33	25,725	79	15	6	49

[a] Reports from a number of districts were incomplete for this question. In most of these districts they include only materials available thru the central audio-visual department. The number of districts giving incomplete information for each type of material is as follows: Sound films, 191 districts; silent films, 121 districts; filmstrips, 139 districts; slide sets, 125 districts; wire and tape recordings, 129 districts; disc recordings, 138 districts; stereograph sets, 122 districts; demonstration sets and kits of slide-making materials, 123 districts; sets of mounted pictures, 124 districts; sets of wall maps, 111 districts; globes, 112 districts; models, mockups, 116 districts; and exhibits, dioramas, 117 districts.

TABLE 20.—AUDIO-VISUAL MATERIALS REPORTED AVAILABLE PER 10,000 STUDENTS ENROLLED

Type of material	Central coordination		Districts not having central coordination	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts
	Districts having formal departments	Districts not having formal departments								
1	2	3	4	5	6	7	8	9	10	11
Sound films (titles)	456	874	933	209	419	806	1,167	1,179	1,322	566
Silent films (titles)	17	28	55	15	17	28	30	35	50	21
Filmstrips (titles)	616	1,274	1,478	250	631	1,111	1,511	1,853	2,733	800
Slide sets	129	175	282	63	160	270	153	162	147	146
Wire and tape recordings	49	40	75	41	44	44	68	71	74	49
Disc recordings	465	559	659	134	616	648	578	545	604	498
Stereograph sets	20	14	30	7	24	26	25	19	13	19
Demonstration kits	11	10	31	6	13	14	15	9	22	12
Kits of slide-making materials	6	4	5	6	3	7	6	5	8	5
Sets of mounted pictures	956	337	274	3,351	211	321	368	200	742	742
Sets of wall maps	117	172	182	184	72	176	177	197	224	142
Globes	54	96	115	60	43	79	96	119	135	73
Models, mockups	28	36	70	48	24	42	38	35	35	34
Exhibits, dioramas	65	21	25	132	49	40	25	15	21	49

[a] For population ranges, see Table 1, page 93.

Renting was not a part of the previous topic on equipment because the 1946 survey showed that the amount of equipment rented was negligible and there was no reason to believe that the practice with respect to equipment had changed.

On the third classification—individual school ownership of materials—the proportion common to a majority of the kinds of materials listed was approximately one-fourth.

Column 9 of Table 19 shows the amount of equipment available per 10,000 students enrolled. The kind of material reported as most widely available was filmstrips.

All the kinds of materials listed in Table 19 are listed in Table 20 with a distribution of

FIGURE III

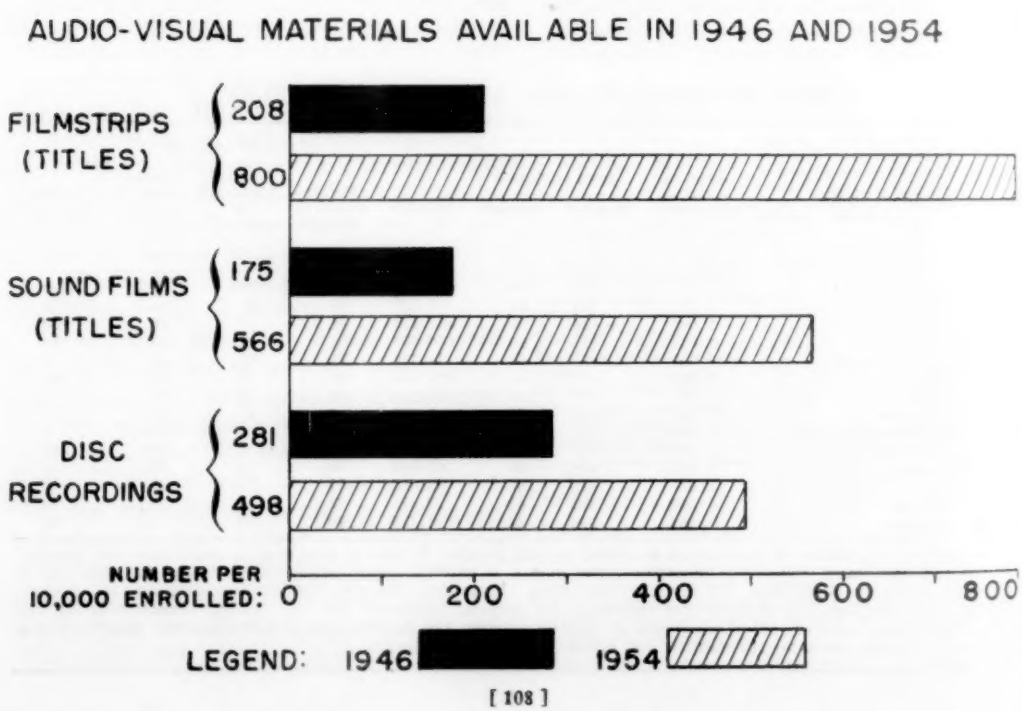


TABLE 21.—PERSONS OR GROUPS WHO USUALLY ASSIST IN THE SELECTION OF AUDIO-VISUAL MATERIALS

Type of position	Central coordination		Districts not having central coordination	All districts
	Districts having formal departments	Districts not having formal departments		
1	2	3	4	5
Superintendent or assistant superintendent	32%	41%	38%	38%
AV staff	74	47	...	45
Classroom teachers	86	84	81	84
Elementary-school principals	63	66	79	68
Secondary-school principals	54	57	68	58
Instructional supervisors	55	32	21	36
Curriculum specialists	37	13	6	18
School library staff	23	28	31	28
Representative staff committee	29	18	10	19
Others[a]	2	1	1	1
Number of districts reporting	338	640	261	1,239

[a] Others include building AV coordinators, department heads, business managers or purchasing officers, pupils, members of boards of education, lay committees, and scholastic and social clubs.

amounts per 10,000 students enrolled, by type of organization and by population groups.

The usual pattern of distribution of audio-visual materials of instruction by type of organization of the program is demonstrated by sound films. The number per 10,000 students enrolled was 456 in urban school districts having formal departments, 874 in districts centrally coordinated but not having formal departments, and 933 in districts without central coordination of the audio-visual program. This pattern—from smaller to larger amounts—was true of eight of the 14 kinds of materials listed. Besides sound films, there were silent films, filmstrips, slide sets, disc recordings, wall maps, globes, and models.

A tabulation by population groups showed more irregularity of pattern; for example, the numbers of disc recordings per 10,000 students enrolled were: Group I districts, 134; Group II districts, 616; Group III districts, 648; Group IV districts, 578; Group V districts, 545; and Group VI districts, 604.

Four items showed a regular progression from a small number per 10,000 students in Group I districts to a large number in Group VI districts. These kinds of materials were sound films, silent films, filmstrips, and wire and tape recordings. Here again, the reason set forth under similar circumstances on the topic of equipment probably holds for materials, and the relative strength of the programs cannot be inferred. It would take considerably more research to determine the richness of programs in communities of different sizes.

But a real high light in this area of audio-visual materials is the mushrooming increase in their availability. Reasonably comparable data for 1946 and 1954 were available for three items: filmstrips, sound films, and disc recordings. Figure III shows that for every filmstrip title available in 1946, there were four in 1954. For every sound film title available in 1946, there were more than three in 1954. For every disc recording available in 1946, there were almost two in 1954.

Responsibility for purchasing materials—The question on purchasing audio-visual materials consisted of two parts—a checklist of those persons or groups of persons who *assist* in the selection of materials and a checklist of those who have *final* responsibility. Again, audio-visual authorities were not restricted to a single answer but were asked to check all who took part.

TABLE 22.—PERSONS OR GROUPS WHO USUALLY HAVE FINAL RESPONSIBILITY IN THE SELECTION OF AUDIO-VISUAL MATERIALS

Type of position	Central coordination		Districts not having central coordination	All districts
	Districts having formal departments	Districts not having formal departments		
1	2	3	4	5
Superintendent or assistant superintendent	51%	76%	83%	71%
AV staff	68	23	...	30
Classroom teachers	8	8	12	9
Elementary-school principals	9	15	30	16
Secondary-school principals	9	17	26	17
Instructional supervisors	8	5	3	6
Curriculum specialists	7	3	2	4
School library staff	*	3	4	3
Representative staff committee	6	5	2	4
Others[b]	3	2	2	2
Number of districts reporting	331	629	259	1,219

[a] Less than one-half of 1 percent.

[b] Others include members of boards of education, business managers or purchasing officers, building AV coordinators, special subject supervisors, and scholastic and social clubs.

The types of positions checked by over half of the 1239 urban school districts reporting were: classroom teachers, 84 percent; elementary-school principals, 68 percent; secondary-school principals, 58 percent. See Table 21.

Widespread participation was reported in school districts that have formal departments, perhaps because of richer personnel resources. Classroom teachers still were reported more often than any other group; but, in addition to teachers and principals, the audio-visual staff, instructional supervisors, and curriculum specialists were listed frequently.

Classroom teachers retained their high position in frequency of mention in districts without central coordination. Three types of positions were increasingly important as the organization for audio-visual programs was less formalized—elementary-school principals, secondary-school principals, and library staffs.

In comparing the totals of Table 17 on equipment with the totals of Table 21 on materials, the main difference was increased participation by classroom teachers—66 percent assisting in the selection of equipment and 84 percent assisting in the selection of materials.

Table 22 shows those persons or groups who usually have final responsibility in the selection of audio-visual materials. The outstanding characteristics of the data are about the same as they were in Table 18 on final responsibility for the selection of equipment. For all urban school districts, final responsibility for selecting materials was most often with the superintendent or assistant superintendent of schools, but in districts having formal departments of audio-visual education this responsibility usually was with the audio-visual staff.

IV. Use of Audio-Visual Materials

Some of the reasons for using audio-visual materials in the classroom are that content may be had which is not available elsewhere, that study is made richer, and that teaching is made more effective. The topics included in this section all have a bearing on the problem of using audio-visual materials effectively. For the most part, the data provide a basis for a quantitative description of conditions that may either hinder or promote the use of audio-visual methods of education. The major topics are: (a) education of classroom teachers for using audio-visual materials, (b) facilitating use in individual schools, (c) frequency of use, and (d) curriculum areas of effective use.

Education of Classroom Teachers

Three questions in the survey were directed at aspects of the education of classroom teachers in the use of audio-visual materials of instruction—experience and training in visual methods as a qualification for employment, preservice preparation, and opportunities for inservice education.

Qualification for employment—While most educators would probably agree that some formal education and/or practical experience in using audio-visual materials would be a desirable qualification for the employment of new classroom teachers, it was a "required qualification" in only 8 percent of the 1252 urban school districts reporting. It was an "important qualification" in 20 percent, a "minor qualification" in 43 percent, and "not considered" in 29 percent. See Table 23.

When the reports were tabulated by type of organization of the audio-visual program, 11 percent of the districts having formal departments required audio-visual education competency of new teachers, as did 7 percent of the districts with central coordination but without formal departments, and 6 percent of the districts without central coordination.

A tabulation by size of school district showed that the highest percent that required this qualification was 15 percent of the Group II districts. But perhaps the best measure of the work yet to be accomplished was the one-fourth to one-third of the school districts wherein audio-visual education competency was not considered in the employment of new classroom teachers.

Preservice education—Audio-visual authorities were asked for their opinion on whether recently employed classroom teachers were better prepared to use audio-visual materials than those employed five years ago and those employed 10 years ago. In the comparison with five years ago, 63 percent of the 1146 reporting audio-visual workers said that the recently employed classroom teachers were "considerably better" prepared; 36 percent, "about the same"; and 1 percent, "considerably worse."

In the comparison with 10 years ago, 85 percent of the 951 reporting audio-visual workers said the recently employed classroom teachers were "considerably better" prepared; 14 percent "about the same"; and 1 percent, "considerably worse."

In the comparisons for both periods the proportions of those judged to be considerably better prepared—85 percent over those 10 years ago and 63 percent over those five years

TABLE 23.—EDUCATION IN THE USE OF AUDIO-VISUAL MATERIALS AS A QUALIFICATION FOR THE EMPLOYMENT OF NEW TEACHERS

Degree of importance	Central coordination		Districts not having central coordination	All districts							
	Districts having formal departments	Districts not having formal departments		Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12
A required qualification	11%	7%	6%	14%	15%	14%	6%	5%	6%	98	8%
An important qualification	20	21	19	14	16	22	19	19	25	255	20
A minor qualification	39	43	47	36	42	37	46	43	42	534	43
Not considered	30	29	28	36	27	27	29	33	27	365	29
	100%	100%	100%	100%	100%	100%	100%	100%	100%	...	100%
Number of districts reporting	334	644	274	14	86	197	430	328	197	1,252	

[a] For population ranges, see Table 1, page 93.

ago—were sufficiently high to suggest that there has been a continuous improvement over the whole period in the education of new classroom teachers for using audio-visual materials.

Inservice education—Inservice education programs were available in almost half (45 percent) of the school districts in the 1953-54 school year. Proportionately more districts with formal departments (58 percent) made inservice opportunities available than did districts with no central coordination at all (33 percent). And such opportunities were relatively more available in the higher population groups of school districts than in the lower with a range from 85 percent of the Group I districts to 39 percent of the Group V districts. See Table 24.

In full recognition of mistaken impressions that can be gotten from averaging percents, the average of the estimated percents of teachers who participated in inservice educational opportunities in 1953-54 is shown in Table 24. Altho crude, this measure seems meaningful in describing general relationships.

Thus, proportionately more elementary-school teachers than secondary-school teachers availed themselves of the opportunities for inservice education in the use of audio-visual materials. For both elementary-and secondary-school teachers, the proportions of those par-

TABLE 24.—AVAILABILITY OF INSERVICE EDUCATION PROGRAMS IN THE USE OF AUDIO-VISUAL MATERIALS AND TEACHER PARTICIPATION IN SUCH PROGRAMS

Item	Central coordination		Districts not having central coordination	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts	
	Districts having formal departments	Districts not having formal departments								Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12
Program available:											
Yes	58%	43%	33%	85%	67%	51%	42%	39%	41%	565	45%
No	42	57	67	15	33	49	58	61	59	705	55
	100%	100%	100%	100%	100%	100%	100%	100%	100%	...	100%
Number of districts reporting	341	652	277	13	88	207	442	325	195	1,270	...
Average of the estimated percents who participated:											
Elementary-school teachers	42%	58%	65%	31%	34%	42%	53%	66%	67%	...	54%
Number of districts reporting	167	231	82	7	46	89	156	108	74	480	...
Secondary-school teachers	26%	44%	50%	22%	18%	22%	37%	52%	63%	...	38%
Number of districts reporting	162	219	67	7	47	91	151	95	57	448	...

[a] For population ranges, see Table 1, page 93.

TABLE 25.—PERCENT OF ELEMENTARY AND SECONDARY SCHOOLS HAVING AN AUDIO-VISUAL BUILDING COORDINATOR

Grade level	Central coordination		Districts not having central coordination	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts
	Districts having formal departments	Districts not having formal departments								
1	2	3	4	5	6	7	8	9	10	11
Elementary schools	80%	56%	82%	88%	75%	75%	71%	52%	51%	74%
Number of schools	7,757	3,447	1,223	2,375	3,762	2,429	2,316	1,121	424	12,427
Number of districts reporting	320	603	279	14	82	182	402	325	197	1,202
Secondary schools	85%	63%	88%	84%	90%	84%	77%	55%	49%	79%
Number of schools	1,994	1,081	408	596	905	674	703	393	212	3,483
Number of districts reporting	326	595	253	14	86	195	408	299	172	1,174

[a] For population ranges, see Table 1, page 93.

ticipating increased as the form of organization of the audio-visual program became less centrally coordinated, and, also, participation increased as the school districts became smaller. These relationships were just the inverse of those for the availability of inservice education.

Facilitating Use of Audio-Visual Materials in Individual Schools

Under this topic three aspects of getting audio-visual materials used are discussed: the prevalence of building coordinators of audio-visual materials, the actual time and the recommended desirable time that building coordinators have for audio-visual work, and the average of the percents of elementary and secondary schools in which students and classroom teachers serve as operators.

Building coordinators—Table 25 shows that 74 percent of the elementary schools and 79 percent of the secondary schools had building coordinators.

A tabulation by type of organization of the program showed that the percents of schools that had coordinators (in districts having formal audio-visual departments and in districts without central coordination of the audio-visual program) were slightly above the percents for the total groups, elementary and secondary. A marked deviation was in districts centrally coordinated but not having formal departments, in which 56 percent of the elementary schools and 63 percent of the secondary schools had building coordinators.

The four groups of largest school districts frequently had building coordinators. Frequency may be interpreted within the range from 71 percent of the elementary schools in Group IV districts to 90 percent of the secondary schools in Group II districts. Only about half of both the elementary and secondary schools in the smallest school districts—Groups V and VI—had building coordinators.

School time that coordinators have for work—Audio-visual authorities reported that in about one-third of the school districts building coordinators had no school time for audio-visual work and that in a majority of school districts (58 percent) they had some school time but less than half time. See Table 26.

When the replies were tabulated by form of organization, the modal amount of time in all three classifications was the "less than one-half time" category. The relative figures were: 49 percent of the districts having departments of audio-visual education, 55 percent of the districts centrally coordinated but not having departments, and 72 percent of the districts without central coordination.

The audio-visual authorities were also asked to recommend the amount of school time that they thought the building coordinators should have for audio-visual work. Most of them recommended less than half—77 percent of all school districts, 79 percent of the districts centrally coordinated both with and without departments, and 70 percent of the districts without central coordination.

TABLE 26.—ACTUAL AMOUNT OF TIME BUILDING COORDINATORS HAVE FOR AUDIO-VISUAL WORK AND AMOUNT OF TIME RECOMMENDED THAT THEY HAVE

Amount of time	Central coordination				Districts not having central coordination		All districts	
	Districts having formal departments		Districts not having formal departments					
	Actual	Recommended	Actual	Recommended	Actual	Recommended	Actual	Recommended
1	2	3	4	5	6	7	8	9
No free time during school hours	31%	...	36%	...	25%	...	32%	...
Some time but less than half time	49	79%	55	79%	72	70%	58	77%
At least half time but less than full time	1	19	2	19	*	27	1	20
Full time	*	2	*	2	...	3	*	3
Time varies with individual schools or grade levels	19	...	7	...	3	...	9	...
	100%	100%	100%	100%	100%	100%	100%	100%
Number of districts reporting	292	197	413	385	248	142	953	724

* Less than one-half of 1 percent.

TABLE 27.—AVERAGE OF THE PERCENTS OF ELEMENTARY- AND SECONDARY-SCHOOL TEACHERS WHO USE EDUCATIONAL MOTION PICTURES AT CERTAIN FREQUENCIES

Frequency of use	Central coordination									
	Districts having formal departments	Districts not having formal departments	Districts not having central coordination	Group I districts[a]	Group II districts[a]	Group III districts[a]	Group IV districts[a]	Group V districts[a]	Group VI districts[a]	All districts
1	2	3	4	5	6	7	8	9	10	11
Elementary-school teachers:										
At least once a week	40%	34%	31%	42%	35%	36%	38%	33%	31%	35%
Every two or three weeks	31	38	32	33	30	36	34	36	34	33
Two or three times a year	17	19	22	14	17	17	17	19	25	19
Never	12	9	15	11	18	11	11	12	10	11
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of districts reporting	273	530	233	11	62	159	359	273	172	1,036
Secondary-school teachers:										
At least once a week	29%	23%	21%	23%	26%	24%	25%	25%	22%	24%
Every two or three weeks	33	34	31	33	27	32	33	34	36	33
Two or three times a year	19	25	27	25	20	22	23	23	29	24
Never	19	18	21	19	27	22	19	18	13	19
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of districts reporting	267	518	208	9	66	159	356	254	149	993

[a] For population ranges, see Table 1, page 93.

While in only 1 percent of the school districts coordinators actually had "at least half time but less than full," this amount was recommended by 20 percent of the total group of replies to the question.

Student and teacher equipment operators—The third question on the facilitating aspects of the audio-visual program pertained to the prevalence of using students and teachers as operators of the equipment. Replies were given as estimated percents. The averages of the percents for 1057 districts reporting for elementary schools and for 1049 districts reporting for secondary schools were:

Operators	*Elementary*	*Secondary*
Student	20%	47%
Teacher	54	17
Both	26	36

Frequency of Use

Audio-visual authorities were asked to estimate the percent of elementary-school teachers and secondary-school teachers who used certain audio-visual materials a designated number of times. Space and time would not permit obtaining detailed information on every type of material. Therefore, four items were listed: motion pictures, filmstrips and slides, audio materials such as radios and record players, and community resources such as field trips. The frequencies of use were listed as: at least once a week, every two or three weeks, two or three times a year, and never.

In the paragraphs that follow, the data on educational motion pictures are analyzed for elementary-school teachers and for secondary-school teachers with the school districts divided by organizational pattern and by size. Then some typical frequencies of motion-picture use in 1946 are compared with those of 1954. The remaining three classifications of materials are discussed only for the total group of the two levels of classroom teachers.

In elementary schools—Table 27 shows the average of the estimated percents of teachers who used educational motion pictures at designated frequencies. For the total group of school districts, 35 percent used motion pictures at least once a week, 35 percent used them every two or three weeks, 19 percent used them two or three times a year, and 11 percent never used them.

A tabulation by type of organization of the audio-visual program showed that 40 percent

of the elementary-school teachers used motion pictures at least once a week in districts having formal audio-visual departments, and 34 percent in school districts having central coordination but without formal departments.

Thirty-two percent of the teachers in districts not having central coordination used motion pictures every two or three weeks.

There was little difference among groups on the basis of population groupings.

In secondary schools—Apparently, secondary-school teachers did not make the use of educational motion pictures in 1954 that elementary-school teachers did. Only 24 percent of the secondary-school teachers were estimated to have used films at least once a week as contrasted to 35 percent of the elementary-school teachers. And on the opposite end, the percents of nonusers were 19, secondary; and 11, elementary.

The relative amount of use by secondary-school teachers appeared to be highest in the districts with formal departments and lowest in districts without central coordination. When the first two classifications of frequency of use were combined as *adequate usage* and the last two as *inadequate usage*, the combined percents followed in this order: Adequate usage could be interpreted for 62 percent of the teachers in districts with formal departments, 57 percent of the teachers in districts having centrally coordinated programs but without departments, and 52 percent of the districts without central coordination.

By size of school district the proportions of adequate and inadequate usage were similar from group to group; that is, slightly over half the teachers in all the groups could be said to be making adequate use of educational motion pictures.

Progress, 1946 to 1954—In the 1946 survey, frequency of motion-picture use by classroom teachers was estimated on a three-point scale: percent using them "frequently," "occasionally," and "never." From the data obtained, medians of the percents were calculated. Earlier paragraphs have pointed out that in the present study a four-point scale was used and the average of the percents calculated. Both surveys, however, included "never" as one point on the scale.

Altho these measures are only rough, in Figure IV the frequent users in 1946 are compared with the frequent users in 1954, and

FIGURE IV

SELECTED INDEXES OF HOW OFTEN CLASSROOM TEACHERS USE EDUCATIONAL MOTION PICTURES

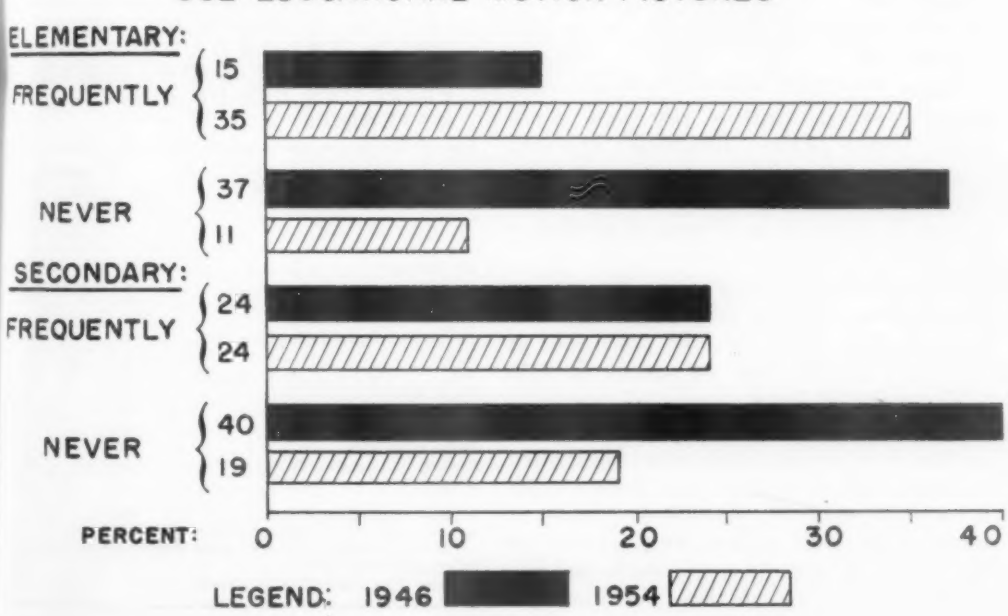


TABLE 28.—AVERAGE OF THE PERCENTS OF ELEMENTARY-SCHOOL TEACHERS WHO USE CERTAIN INSTRUCTIONAL MATERIALS

Frequency of use	Filmstrips and slides	Audio materials	Community resources
1	2	3	4
At least once a week	28%	37%	12%
Every two or three weeks	35	26	18
Two or three times a year	21	20	42
Never	16	17	28
	100%	100%	100%
Number of districts reporting	1,010	899	778

TABLE 29.—AVERAGE OF THE PERCENTS OF SECONDARY-SCHOOL TEACHERS WHO USE CERTAIN INSTRUCTIONAL MATERIALS

Frequency of use	Filmstrips	Audio materials	Community resources
1	2	3	4
At least once a week	15%	21%	10%
Every two or three weeks	24	21	16
Two or three times a year	26	25	35
Never	35	33	39
	100%	100%	100%
Number of districts reporting	929	826	724

the nonusers in 1946 are compared with the nonusers in 1954. For the purposes of this comparison, those who used motion pictures at least once a week in 1954 were considered frequent users, a conservative interpretation of the term "frequently" in the light of the data in Figure IV.

Figure IV shows that the proportions of elementary-school teachers who used educational motion pictures frequently, increased from 15 percent in 1946 to 35 percent in 1954. The proportion of those who never used motion pictures decreased from 37 percent in 1946 to 11 percent in 1954.

For secondary-school teachers, the proportion of frequent users did not change from 1946 to 1954. However, the proportion of nonusers decreased from 40 percent in 1946 to 19 percent in 1954.

Other types of materials—Table 28 shows averages of the estimated percents of how often elementary-school teachers used certain types of materials in 1954. Sixty-three percent of the total group of teachers were reported as using filmstrips and slides, and radios and record players every two or three weeks or more often. The items of real concern, however, are the percents of nonusers that were reported: 16 percent for filmstrips, 17 percent for audio-visual materials, and 28 percent for field trips.

Table 29 shows the same types of data for secondary-school teachers as Table 28 does for elementary-school teachers. The chief differences between the two are the percents of nonusers for all the types of materials—35 percent never used filmstrips and slides; 33 percent, audio materials; and 39 percent, community resources.

TABLE 30.—CURRICULUM AREAS IN WHICH SECONDARY-SCHOOL TEACHERS ARE MAKING THE MOST EFFECTIVE USE OF AUDIO-VISUAL MATERIALS

Curriculum areas	All districts	
	Number	Percent
1	2	3
Science	917	86%
Social studies	912	86
English	275	26
Vocational education	248	23
Health and physical education	186	17
Home economics	182	17
Industrial arts	96	9
Commercial education	85	8
Music	63	6
Foreign languages	61	6
Safety and driver education	59	6
Art	38	4
Speech	30	3
Mathematics	23	2
Number of districts reporting	1,066	..

TABLE 31.—CURRICULUM AREAS IN WHICH SECONDARY-SCHOOL TEACHERS ARE MAKING THE LEAST EFFECTIVE USE OF AUDIO-VISUAL MATERIALS

Curriculum areas	All districts	
	Number	Percent
1	2	3
Mathematics	706	74%
English	383	40
Foreign languages	289	30
Commercial education	162	17
Health and physical education	105	11
Music	85	9
Art	79	8
Social studies	64	7
Vocational education	63	7
Industrial arts	62	7
Home economics	45	5
Science	33	4
Others[a]	3	[b]
Number of districts reporting	954	..

[a] Others include safety and driver education, character education, and philosophy.
[b] Less than one-half of 1 percent.

Curriculum Areas of Effective Use

The final major topic in this section on using audio-visual materials is on the effectiveness or lack of effectiveness with which classroom teachers employed such materials in various subjectmatter areas. On the survey blank, audio-visual authorities were requested to write in the names of the fields of most effective use and of least effective use.

Table 30 shows the areas of most effective use for secondary-school teachers. Science and social studies were each mentioned by 86 percent of the 1066 districts reporting. No other subjects were mentioned nearly as often. The next four were English, mentioned by 26 percent; vocational education, by 23 percent; health and physical education, by 17 percent; and home economics, by 17 percent.

Table 31 shows the areas of least effective use for secondary-school teachers. The figures are not the complements of those in Table 30 because the subjects were written in independently for both degrees of effectiveness. Seventy-four percent of the 954 urban school districts reporting named mathematics as a field of least effective use; English was named by 40 percent, and foreign languages, by 30 percent.

In elementary schools, subjectmatter lines are not usually as clearly delineated as they are in secondary schools. However, for elementary schools, too, audio-visual authorities were asked to name the fields of most effective use. The same two subjects as for secondary schools were far ahead in numbers of times mentioned. Ninety-three percent of the 1029 school districts reporting, mentioned social studies, and 73 percent mentioned science as the fields of most effective use of audio-visual materials. The chief distinction between elementary and secondary was that for elementary schools social studies was considerably ahead of science.

These general relationships of effective teaching of the various subjects with audio-visual materials appeared to be generally unchanged since the 1946 survey.

V. Financial Support for Audio-Visual Education

The area of audio-visual education is not exempted from the problems of financial support that seem to plague continuously most aspects of the educational program. In this survey, data on financial support were sought in terms of the budgeted amount of public funds for audio-visual education *exclusive of salaries*. Budgeted funds rather than expenditures were asked for because the questionnaire was mailed before the close of the school year for which the information was needed.

Purpose of Funds

Table 32 shows the purposes for which audio-visual education funds were made available by boards of education for the 1953-54 school year and also the relative amounts. Thus, the audio-visual education dollar was divided as follows: 35 percent for the purchase of equipment, 35 percent for the purchase of materials, 14 percent for rental fees for materials, 10 percent for the maintenance of equipment and materials, 1 percent for producing materials, and 5 percent for other operational expenses.

Per-Pupil Amounts

For all school districts that reported, the amount of money per pupil enrolled was calculated. Then medians of the per-pupil amounts were calculated for school districts by type of organization of the audio-visual program and by size of school district. See Table 33.

The median amount of money for audio-visual equipment and materials per pupil enrolled was 65 cents for all districts that reported. The median in school districts with formal departments was slightly higher at 68 cents as was the median in districts centrally coordinated but without formal departments at 66 cents. In districts without central coordination the median dropped to 56 cents.

By size of school district, the medians were low in Group I districts and Group II districts at 38 cents and 40 cents respectively. Then, for the four groups of smaller school districts, the medians ranged from 64 cents in Group III districts and 62 cents in Group IV districts to 79 cents in Group VI districts. This pattern of larger amounts of money per pupil in the smaller school districts is similar to the larger

TABLE 32.—THE AUDIO-VISUAL DOLLAR IN 1953-54, EXCLUSIVE OF STAFF SALARIES

Purpose	Percent budgeted
1	2
Purchase of equipment	35%
Purchase of materials	35
Rental fees for materials	14
Maintenance of equipment and materials	10
Producing AV materials	1
Other operating expenses	5
	100%

TABLE 33.—MEDIANS OF THE PER-PUPIL ENROLLED AMOUNTS OF BUDGETED PUBLIC FUNDS FOR AUDIO-VISUAL EDUCATION, EXCLUSIVE OF STAFF SALARIES, 1953-54

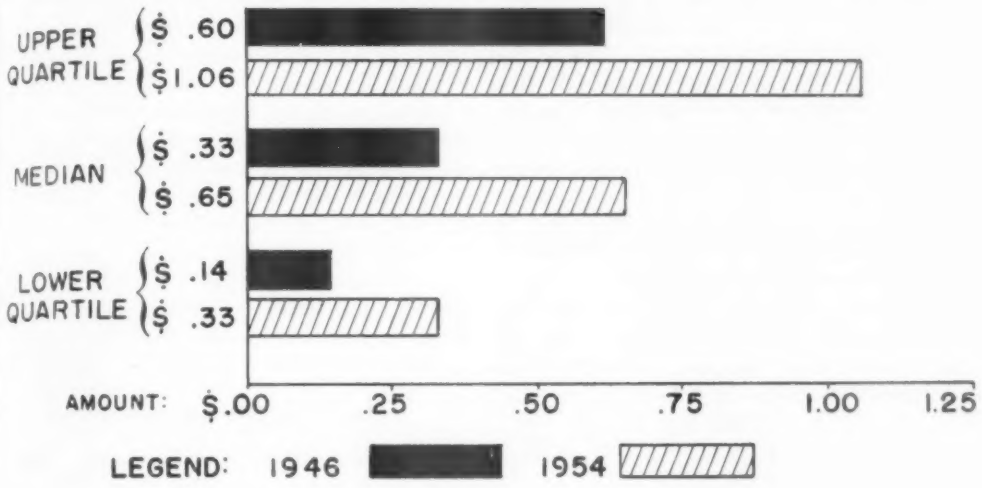
Groups of school districts	Number of school districts	Median per-pupil amount
1	2	3
By organization of program:		
Centrally coordinated, having formal departments	317	$ .68
Centrally coordinated, not having formal departments	602	.66
Not centrally coordinated	249	.56
By size of school district:		
Group I districts	14	.38
Group II districts	82	.40
Group III districts	183	.64
Group IV districts	406	.62
Group V districts	293	.72
Group VI districts	190	.79
All districts reporting	1,168	.65

TABLE 34.—FREQUENCY DISTRIBUTION OF THE PER-PUPIL AMOUNTS OF BUDGETED PUBLIC FUNDS FOR AUDIO-VISUAL EDUCATION, EXCLUSIVE OF STAFF SALARIES, 1953-54

Amount per pupil	All districts	
	Number	Percent
1	2	3
$2.00 or more	62	5%
1.75–1.99	31	3
1.50–1.74	43	4
1.25–1.49	74	6
1.00–1.24	107	9
.75– .99	181	16
.50– .74	214	18
.25– .49	237	20
.01– .24	134	12
Less than .01	85	7
All districts reporting	1,168	100%
Upper quartile	$1.06	
Median	.65	
Lower quartile	.33	

FIGURE V

SELECTED POINTS IN THE DISTRIBUTION OF FINANCIAL SUPPORT PER PUPIL FOR AUDIO-VISUAL EDUCATION IN 1946 AND 1954



amounts of certain equipment and materials in these same groups of districts. The difference could be one of greater efficiency of use in the large districts, or it could be one of better programs in smaller districts. However, the data do not admit a determination of the question.

Table 34 is a frequency distribution of the per-pupil amounts for all districts. In almost three-fourths of the districts the amount per pupil was less than $1.

This frequency distribution together with a similar one in the 1946 survey made possible the points of comparison that are shown in Figure V. In both years the financial data asked for were public funds made available for audio-visual education by boards of education. However, salaries of the audio-visual staff were included in the 1946 calculations. Therefore, the differences shown in Figure V should be somewhat greater.

There is no doubt that support for audio-visual education increased in the span of eight years. At the upper quartile, the amount was 60 cents in 1946 and $1.06 in 1954. At the median, the support per pupil enrolled doubled from 33 cents to 65 cents. At the lower quartile the amount increased from 14 cents to 33 cents. Altho not shown in Figure V, one more comparison was possible. In 1946 only 2 percent of the cities reported an expenditure of $2 or more per pupil, and in 1954, 5 percent of the school districts equaled or exceeded the $2 amount.

Other Financial Considerations

For the eight-year comparison some allowance should be made for the effect of higher prices on the purchasing power of the dollar. An index of prices specifically for audio-visual materials and equipment is not available. However, the Consumer Price Index of living costs is probably a rough measure of trends in this field also. The Index recorded an increase of 45 percent from the school year 1945-46 to the school year 1953-54. Thus, the median 33 cents per pupil in 1945-46 should

TABLE 35.—PERCENT OF INCREASE IN ESTIMATED BUDGET FOR AUDIO-VISUAL EDUCATION, EXCLUSIVE OF STAFF SALARIES, FROM 1953-54 TO 1954-55

Groups of school districts	Number of school districts	Percent of increase
1	2	3
Centrally coordinated, having formal departments	295	13%
Centrally coordinated, not having formal departments	585	8
Not centrally coordinated	236	2
All districts reporting	1,116	12%

be increased 45 percent to 48 cents before any real increase in support should be recognized.[1]

To bring the financial support figures closer to date, audio-visual authorities were requested to estimate their budgets for the 1954-55 school year. According to Table 35, the total of the budgets combined for all districts that reported was 12 percent more in 1954-55 than it was in 1953-54. The increase was 13 percent for districts with formal audio-visual departments. The increase was 8 percent for districts centrally coordinated but without formal departments, and only 2 percent for districts without central coordination of their audio-visual programs. Even with the 12-percent increase for 1954-55 for all districts reporting, on almost anyone's scale of values the support for audio-visual education must be termed inadequate.

With all these calculations and comparisons the conclusion is clear: Support for audio-visual education was and is a pittance.

[1] National Education Association. Research Division. *Economic Status of Teachers in 1954-55*. Special memo. Washington, D. C.: the Association, December 1954. p. 10. (Offset)

VI. An Evaluation of Progress

The survey tried to get an evaluation of the major aspects of the program with questions that required the considered judgment of the individuals who replied. Then each person who was not satisfied with the status of audio-visual education was invited to recommend changes. This final section is a report on these considered judgments of audio-visual workers.

The specific areas covered by the questions of opinion were the administrative organization, materials and equipment, and the pre-service and inservice education of classroom teachers. Then the last question of the survey was an over-all type of evaluation, a checklist of the major and minor handicaps to more effective use of audio-visual materials.

Administrative Organization

The question on the administrative setup for audio-visual education required a direct Yes or No as to whether it was satisfactory.

Of 1278 who replied, 52 percent were satisfied while 48 percent were not satisfied. The proportion of affirmative answers went up to 60 percent in districts with formal departments and dropped to 47 percent in districts without central coordination. See Table 36.

By size of school districts, at least half in each group reported a satisfactory setup; in Group II districts the percent in the affirmative reached 65.

Of 614 who reported unsatisfactory setups, 588 recommended one or more changes which can be classified as follows: 37 percent recommended more time for the director; 16 percent, central coordination; 14 percent, more adequate materials and equipment; 14 percent, better physical facilities such as room darkening; 12 percent, more assistants for the director; 10 percent, more adequate budget; 10 percent, more adequate inservice education for teachers; 5 percent, better coordination and planning; 4 percent, more adequate plan of distribution; 4 percent, more time for building coordinators; 3 percent, an expanded program; 3 percent, more adequate space such as storage and preview rooms; 2 percent, better training for the director; 2 percent, concentration of all materials in one center; 1 percent, more help for building coordinators; and 1 percent, more school-owned films.

The chief recommendation from the two classes of districts with centrally coordinated programs was for more time for the director. The chief recommendation from districts without central coordination was the establishment of central coordination.

By size of school district, the most frequently mentioned recommendations were: better physical facilities, such as room darkening, in Group I districts; more assistants for the director in Group II districts; and more time for the director in the other four groups.

TABLE 36.—EVALUATION OF ADMINISTRATIVE ORGANIZATION FOR AUDIO-VISUAL EDUCATION

Groups of school districts	Setup satisfactory?		Number of districts
	Yes	No	
1	2	3	4
By organization of program:			
Centrally coordinated, having formal departments	60%	40%	341
Centrally coordinated, not having formal departments	50	50	658
Not centrally coordinated	47	53	279
By size of school district:			
Group I districts	50	50	14
Group II districts	65	35	86
Group III districts	53	47	204
Group IV districts	50	50	443
Group V districts	52	48	334
Group VI districts	51	49	197
All districts	52%	48%	1,278

Physical Facilities, Materials, and Equipment

The section of the survey that was devoted to physical facilities, materials, and equipment asked for a rating as to whether they were above average, average, or below average.

Of 1291 ratings, 28 percent were above average, 46 percent were average, and 26 percent were below average. The number of above average ratings was lowest in the districts without central coordination and in Group VI districts. On the other hand, the number of above average ratings was highest in districts with formal departments and in Group I, II, and III districts. See Table 37.

Those audio-visual workers who gave ratings of "below average" were asked what changes they would like to make. One or more changes were suggested by 296. About two-thirds desired better adapted classrooms; about one-third desired more adequate equipment;

about one-fifth desired more adequate materials; about one-fifth desired better physical facilities such as storage and preview rooms; about one-tenth desired a more adequate budget; and about one-fifteenth desired better adapted auditoriums.

Tabulations by organization of the program and by size of school district showed that the chief recommendation made by all was for better adapted classrooms.

Preservice and Inservice Education of Classroom Teachers

Preservice and inservice education of classroom teachers was considered as significant in facilitating the use of audio-visual materials. The question on evaluation was a request as to whether or not such education was meeting the needs for improved instruction.

Table 38 shows that 49 percent of the audio-visual authorities regarded the education of classroom teachers in using audio-visual materials as adequate. By type of organization of the program, only 43 percent of the replies from districts with formal departments were affirmative while 54 percent of the replies from districts without central coordination were affirmative.

By size of school district, affirmative replies were received from only 14 percent of the Group I districts and 41 percent of the Group III districts. Affirmative replies were received from about half of each of the other four groups.

TABLE 37.—RATING GIVEN AUDIO-VISUAL MATERIALS, EQUIPMENT, AND PHYSICAL PLANT FACILITIES IN URBAN SCHOOL DISTRICTS

Groups of school districts	Above average	Average	Below average	Number of districts
1	2	3	4	5
By organization of programs:				
Centrally coordinated, having formal departments	42%	38%	20%	346
Centrally coordinated, not having formal departments	25	48	27	661
Not centrally coordinated	19	49	32	284
By size of school district:				
Group I districts	36	36	28	14
Group II districts	42	37	21	87
Group III districts	40	34	26	206
Group IV districts	28	45	27	449
Group V districts	25	51	24	334
Group VI districts	15	54	31	201
All districts	28%	46%	26%	1,291

TABLE 38.—EXTENT TO WHICH PRESERVICE AND INSERVICE EDUCATION OF CLASSROOM TEACHERS IN THE USE OF AUDIO-VISUAL MATERIALS IS MEETING THE NEED FOR IMPROVED INSTRUCTION

Groups of school districts	Education meeting needs?		Number of districts
	Yes	No	
1	2	3	4
By organization of program:			
Centrally coordinated, having formal departments	43%	57%	321
Centrally coordinated, not having formal departments	49	51	589
Not centrally coordinated	54	46	263
By size of school district:			
Group I districts	14	86	14
Group II districts	48	52	84
Group III districts	41	59	196
Group IV districts	49	51	413
Group V districts	52	48	287
Group VI districts	52	48	179
All districts	49%	51%	1,173

Of the 604 audio-visual educators who said the training was inadequate, 479 suggested changes. Thirty-five percent of the 479 recommended the adoption or expansion of inservice education programs; 19 percent, more time for the inservice education program; 12 percent, better preservice education; 10 percent, more and better workshops; 8 percent, that a course in audio-visual materials be made a requirement for certification to teach; 8 percent, greater emphasis on the how and the why of audio-visual education; and the other recommendations were similar to the foregoing.

When the districts were classified by organization of the program, the chief recommendation in all three groups was for the adoption or expansion of inservice education programs. And when the districts were classified by size, the same was true in all the groups except Group I districts where better preservice education headed the list of recommended changes.

Serious Barriers

The last question on the survey required a Yes or No answer. It was: Do you have any serious barriers to the effective use of audio-visual materials in your school system? This question was intended to get an over-all judgment on what problems hinder more effective use of audio-visual materials. To some extent there is overlapping with the other questions of opinion. Yet the information is sufficiently

TABLE 39.—EXTENT TO WHICH SERIOUS BARRIERS TO THE EFFECTIVE USE OF AUDIO-VISUAL MATERIALS WERE REPORTED

Groups of school districts	Serious barriers?		Number of districts
	Yes	No	
1	2	3	4
By organization of program:			
Centrally coordinated, having formal departments	49%	51%	334
Centrally coordinated, not having formal departments	51	49	650
Not centrally coordinated	48	52	277
By size of school districts:			
Group I districts	64	36	14
Group II districts	46	54	82
Group III districts	54	46	200
Group IV districts	51	49	443
Group V districts	47	53	326
Group VI districts	48	52	196
All districts	50%	50%	1,261

important to merit separate reporting and some restatement.

Half the districts reported serious problems. By organization of the program, problems were about as prevalent in one group as in another. On the basis of size of district, there was somewhat more variation among the groups. Of the Group I districts, 64 percent reported serious handicaps, and of the other groups the percents ranged from 46 to 54. See Table 39.

For districts that had reported serious barriers to the effective use of audio-visual materials, a checklist of eight possible trouble spots was provided. Audio-visual workers were to check one or more either as major or minor.

Of 630 districts that reported barriers, 623 gave some indication on the checklist of what they were. Table 40 shows the results.

The four leading major handicaps were: (a) classroom teachers as a whole are not interested in using audio-visual materials (49 percent), (b) it is difficult to obtain sufficient funds for equipment and materials (39 percent), (c) the district lacks a central agency to get the materials together and to coordinate the work (26 percent), and (d) adequately trained leaders are not available for employment (16 percent).

Besides the eight main items, the checklist included five possible reasons why classroom teachers as a group were not interested in using audio-visual materials. On this further probing, the chief difficulty turned out to be that adaptable instructional space was not available at the appropriate time. Tabulations of this reason and the other four are shown in Table 41.

Concluding Impressions

In some ways, this report shows that real progress is being made in audio-visual education. More departments of audio-visual education are being established, more equipment and materials are available in the classrooms, more classroom teachers are prepared to use the materials, and more teachers are using them.

On the other hand, some problems that call urgently for attention, stand out from the data. More time, better timing, more central coordination, better adapted classrooms, more and better training, and behind all the needs, better financial support—these represent work yet to be accomplished in audio-visual education.

TABLE 40.—MAJOR AND MINOR HANDICAPS TO EFFECTIVE USE OF AUDIO-VISUAL MATERIALS REPORTED BY 623 SCHOOL DISTRICTS

Handicap	Percent reporting each one	
	Major	Minor
1	2	3
Classroom teachers as a whole are not interested in using audio-visual aids	49%	32%
Insufficient funds	39	16
Ineffective or no central agency	26	10
Adequately trained leaders not available for employment	16	10
Administrative or supervisory opposition or indifference	8	13
Board of education not convinced of value	5	17
Secondary-school principals as a group not convinced of value	3	10
Elementary-school principals as a group not convinced of value	2	11

TABLE 41.—REASONS WHY CLASSROOM TEACHERS ARE NOT INTERESTED IN USING AUDIO-VISUAL MATERIALS REPORTED BY 623 SCHOOL DISTRICTS

Reason	Percent reporting each one	
	Major	Minor
1	2	5
Adaptable instructional space not available at appropriate time	38%	23%
Not qualified to use them	24	17
Materials and equipment not available when needed	18	15
Equipment cumbersome to use	12	10
Materials unsuitable	6	4

PARTLY because the extensive use of audio-visual materials is of recent origin, a word of caution may not be inappropriate. This is an area in which educators should refrain from merely keeping up with the Joneses. When equipment and materials are provided for use in the schools the selection should be made, not in terms of what some other school has selected, but in terms of what is needed to achieve the school's own goals. No type of aid should be used to the exclusion of other types, for none is a panacea to cure all teaching ills. Projected materials have their place, as do recordings, radio, and other mechanized devices. But alongside these aids the good teacher still will use such time-honored and simple devices as maps, charts, flat pictures, models, and blackboard sketches.

Use of audio-visual materials is not an end in itself but rather one of the essential tools for artistic teaching. The best service that can be rendered to teachers, therefore, is provision of an abundant supply of varied and well-selected materials, classified and distributed in such a way that they are always readily accessible as classroom needs arise.—National Education Association, Research Division. "Audio-Visual Education in City-School Systems." *Research Bulletin* 24: 168; December 1946.

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FOREWORD

IN THE ebb and flow of supply and demand, there may be a plentiful supply or a severe shortage of qualified persons at any given time to carry out certain activities desired by a society. There is abundant evidence today that America's most critical shortage is that of trained manpower. The development of our technology—the proliferation of tasks of ever-increasing specialization—has outrun production of adequately trained personnel in many fields.

Just now this shortage is dramatized by the demands for engineers and scientists because of the obvious relation of these fields to our national defense. But it is also clear that America's employers will be plagued with an insufficient number of trained specialists in many aspects of our national life in the years immediately ahead. And, unhappily, it is clear that one of the most critical shortages is in the educational system at all levels.

In recent years we have learned much about the trends and dimensions of the shortage of qualified elementary- and high-school teachers. The annual NEA survey of this problem, now in its ninth year, brings to light many of the basic facts. To date, however, no parallel body of information concerning the needs of higher education has been assembled. Altho college and university leaders are alert to the impending expansion in enrolments and are actively studying the problem of needed instructional personnel, many of the needed facts are wanting.

The investigation reported in this bulletin was designed to reveal some of the facts needed to support future planning by those having firsthand responsibility for staffing the institutions of higher education. It is a pioneer effort to measure the need for new instructional personnel, field by field. The study also has sought to bring to light certain characteristics of the whole corps of teachers now at work in colleges and universities.

Of necessity, such a study is no more than a beginning. If it has prepared the way for more comprehensive investigations, it will have served a good purpose. The problem stretches out before us, far beyond present horizons. Without question, the competition for qualified instructional personnel—teachers of all subjects and at all levels—will become sharper as enrolments expand. And no easy or early solution is in sight.

Any new study entails the search for information not readily available. Busy officials on campuses all across the nation have been generous with their time in the effort to assemble the data sought by the NEA Research Division. We are deeply grateful to them for this splendid cooperation.

WILLIAM G. CARR, *Executive Secretary,*
National Education Association.

I. Introduction

Can institutions of higher education in America build the instructional staffs which future enrolments will inevitably require? How can future needs be determined? On what bases can meaningful predictions be made? From what sources will new teachers come? What will be the nature and extent of their preparation? Will the total available new teachers be distributed among the teaching fields according to the needs? Will the present ratio of men to women be maintained? And what will be the competition, among the different types of institutions and by other occupations, for the qualified candidates in each field?

A struggle with these questions stands high on the "must" list of every college and university administrator who seeks to anticipate problems. Harassed as he is with the growing need for more funds, more buildings, and more services, and with a clear picture before him of the "impending tide" of students, he cannot for a moment take his eye off the central purpose of all education—effective classroom instruction. Where to obtain and how to retain qualified instructional staff in the required numbers may well be the greatest single problem to confront him in the next decade.

A vast expansion of enrolments in higher education institutions is inevitable for at least these two reasons: (a) the *total number* of 18- thru 21-year-olds will increase each year for the next 18 years, as indicated by records now available; (b) the *percent* of this group who wish to attend college is likely to increase, thus compounding the problem of gross numbers. And only a little less baffling is the probability that this enlarged number will require an even greater diversification of offerings as colleges seek to prepare these young people for the increasing complexities of occupational life.

The percent of the college-age group actually to attend college is, of course, determined by many factors. Certainly the availability of attractive employment at the time of high-school graduation is a potent one. The state of our national defense is another. But the devotion of the American people to the ideal of education for all, up to the capacity of each youth, is strengthened with the passing of each year. The question facing educational leadership, then, is not whether enrolments will increase but, rather, how to prepare for the increase.

And in pondering the question, Where will qualified instructional staff members come from? it matters little whether a particular institution intends to restrict its student body to its present size, as some do, or whether the institution foresees its future growth to be consonant with the expanding demands for admission. The number of qualified candidates for college teaching positions will be limited, and all institutions will compete, up to the limit of their resources, for this limited number.

Need for the Study

As higher education faces the future task of staffing its classrooms with qualified personnel, many of the needed basic facts are lacking. Future plans, to be effective, must be undergirded by a clear picture of existing conditions. Only then can a projection of future needs be built. Unlike elementary and secondary education, however, where national studies of the supply of and demand for teachers have been conducted annually for the past eight years,[1] higher education has little or no backlog of information concerning its instructional staff needs.

A study of the NEA Research Division reported a year ago [2] brought to light some rather startling information concerning the incomplete state of the preparation of many full-time staff members now in service. The same study revealed the fact that, while degree-granting institutions readily employ considerable numbers of teachers whose preparation is meager in terms of degrees held, a large number of these institutions make no provision for assisting their teachers to improve their academic status.

But an up-to-date picture of the present staff—showing such elementary facts as sex, age, and distribution among the teaching fields

[1] The annual National Teacher Supply and Demand Report is prepared by the NEA Research Division and published in the March issue of the *Journal of Teacher Education*.

[2] National Education Association, Research Division. "Instructional Staff Practices and Policies in Degree-Granting Institutions, 1953-54." *Research Bulletin* 32: 165; December 1954. Table 5.

—is lacking. Similarly, little is known about the sources of new college teachers and their preparation. A college administrator knows, of course, how many new teachers he has added to his staff and for what fields of instruction, but where can he learn how many candidates for a certain type of position were sought the same year by all institutions (total demand) so that this demand may be compared with the total available supply?

There is available, of course, a concise, up-to-date report on the total number of recipients of master's and doctor's degrees,[3] field by field, but little is known about the occupational aspirations of these potential college teachers. For example, the number of the PhD recipients in chemistry may or may not have any meaningful relation to the number of available candidates for positions as teachers of college chemistry classes.

Again, it is known that the salary schedules in certain types of higher institutions are substantially higher than in others. It seems fair to assume, therefore, that there is a steady shift of successful teachers from these latter institutions to the ones paying higher salaries. While such procedure may be expected, where will it leave the less favored institution in the oncoming era of keener competition?

Obviously, the existing relation between supply and demand must be viewed in new terms if the instructional staff of higher education is to be increased to meet the expected demands during the next 15 years. And thus the sharpened need for basic facts becomes more apparent.

Purpose of the Study

This is the third in a series of Research Division studies of selected problems of general interest among degree-granting institutions.[4] One purpose of the study is to provide employing officials with an overview of instructional staff needs. To this end it reports by teaching field, by sex, and by amount of preparation the number of new full-time teachers employed during 1953-54 and 1954-55, together with an indication of the sources from which these new teachers came.

A second purpose is to provide a description of the total full-time instructional staff now in service, by sex and by teaching field. A third purpose is to show thru an age distribution the rate at which members of the present staff will arrive at retirement age. A fourth purpose is to present an evaluation of the current supply-demand situation as viewed by employing officials in search of new appointees.

Finally, it is a purpose of this study to provide a basis for more concise counseling of students, both graduate and undergraduate, who are interested or who may become interested in college and university teaching. For them it is important to know the number and kinds of opportunities open to persons outside the corps of full-time college teachers. These students want, and have the right to know, how many teaching positions in *what fields* of instruction and in *what types* of institutions are open to candidates at the *various levels* of preparation.

Plan of the Study

This study is limited to degree-granting institutions. It excludes (a) junior colleges; (b) colleges and universities staffed completely by dedicated members of religious groups who are not employed in the usual way;[5] and (c) special types of institutions, such as theological seminaries, special schools of art, chiropody, design, music, optometry, pharmacy, textiles, and all others in which the regularly employed instructional personnel is likely to be limited to special fields. Since this study is a pioneer effort in this area of investigation, it seemed logical to restrict it to degree-granting institutions in the belief that a more accurate definition of the teaching staff could be applied and in view of the greater likelihood that comparable data could be assembled.

To the degree-granting institutions it was suggested that such units as schools of dentistry, medicine, and law be omitted from the report if numerous members of the teaching staffs

[3] U. S. Department of Health, Education, and Welfare, Office of Education. *Earned Degrees Conferred by Higher Educational Institutions.* Issued annually.

[4] The preceding studies are: National Education Association, Research Division. "Instructional Staff Practices and Policies in Degree-Granting Institutions, 1953-54." *Research Bulletin* 32: 159-214; December 1954.

National Education Association, Research Division. "Salary-Schedule Provisions or Salaries Paid in Degree-Granting Institutions, 1952-53." *Research Bulletin* 31: 135-67; December 1953.

[5] Numerous among the participating institutions are colleges and universities in which both lay and dedicated teachers are employed.

TABLE 1.—GROUP DESIGNATION OF EACH TYPE OF INSTITUTION AS USED IN THIS REPORT

Group designation	Type of institution
1	2
I	Public universities and land-grant colleges
II	Nonpublic universities
III	State colleges
IV	Teachers colleges
	Nonpublic colleges (by enrolment):
V	1,000 and over
VI	500–999
VII	Under 500

of these schools are not usually employed on a full-time basis. In other words, the effort was made to limit this study to staff members completely in the employ of the reporting institution.

In the presentation of the findings of this study the reporting institutions are grouped as follows: publicly controlled universities and land-grant colleges, nonpublicly controlled universities, state colleges, teachers colleges, and nonpublicly controlled colleges. This last group is subdivided into three subgroups: those with more than 1000 full-time enrollees, those with 500-999, and those with fewer than 500. These seven groups of institutions will be referred to in this text by Roman numerals as shown in Table 1. The use of these group designations will avoid much repetition of cumbersome titles.

Definition of Terms

The terms *colleges* and *universities* refer to internal organization rather than to legal title. Single-unit institutions are reported in this bulletin as colleges altho the word *university* may appear in their official names. Complex institutions are classified as universities even tho the word *college* is in their official titles.

The convenient term *teacher* is used to include instructional personnel of all ranks. Administrators are included only if they ordinarily carry at least a half-time teaching load.

The *regular full-time teaching staff* consists of all college and university teachers who are employed on a continuing basis; this means they are on tenure or in line to earn tenure. It includes teachers whose teaching loads are reduced for research and other approved assignments, as well as members of the full-time professional library staff, whether or not the latter may be engaged in teaching. It does not include elementary- and high-school teachers in a laboratory school unless they devote at least half time to the instruction or supervision of college students.

A *new* teacher is one who joins the regular full-time teaching staff but *who was not a member of a regular college or university full-time teaching staff anywhere the preceding year*. The *new* teacher may have been a former college teacher, a graduate student, a high-school teacher, a superintendent, a businessman, a housewife, a returning soldier—anything—but not a member of a regular full-time college teaching staff. The whole point of this study rests upon a clear understanding of this definition of a *new* teacher; it is only such a *new* teacher who *satisfies a demand* for a person to come from outside the total body of regular full-time college teachers the preceding year.

A *temporary full-time teacher* may be a substitute for a regular teacher on leave or ill, or a fill-in pending a regular appointment, but both employer and employee understand that termination of employment is foreseen.

Coverage of the Study

This study is broadly representative of higher education in America. Just over two of every three institutions addressed (67.8 percent) found it possible to prepare and return the inquiry form before the tabulations were started.[6] Of the multiple-unit institu-

TABLE 2.—NUMBER OF DEGREE-GRANTING INSTITUTIONS INVITED TO PARTICIPATE, AND NUMBER AND PERCENT REPLYING

Type of institution	Number invited to participate	Number replying	Percent replying
1	2	3	4
I. Public universities and land-grant colleges	112	82	73.2%
II. Nonpublic universities	110	56	50.9
III. State colleges	131	103	78.6
IV. Teachers colleges	118	94	79.7
Nonpublic colleges (by enrolment):			
V. 1,000 and over	77	50	64.9
VI. 500–999	173	112	64.7
VII. Under 500	271	176	64.9
All institutions	992	673	67.8%

[6] A considerable number of responses arrived too late to be included in this report.

tions 62.2 percent responded while of the single-unit institutions 69.5 percent did so. The number of each type of institution invited to participate and the number and percent which responded are shown in Table 2.

A further indication of the coverage of this study is the enrolment of 946,674 full-time college students in the participating institutions. A breakdown of this enrolment by type of institution is shown in Table 3.

The total number of regular full-time teachers in the 673 participating institutions is 63,751. For all institutions the range in number of regular full-time teachers is from 2 to 2898; the median is 48. One-fourth of the reporting institutions have no more than 30, while one-fourth have as many as 99 each. In Group I the median staff consists of 274 full-time teachers; the range is from 43 to 2898. In Group II the median is 134 full-time teachers; the range is from 17 to 860. Among single-unit institutions the median ranges from 25 to 73. These details for all types of institutions are shown in Table 4.

TABLE 3.—ENROLMENT OF FULL-TIME STUDENTS OF COLLEGE GRADE IN THE 673 PARTICIPATING INSTITUTIONS, 1954-55

Item	All institutions	Type of institution						
		Public universities and land-grant colleges	Nonpublic universities	State colleges	Teachers colleges	Nonpublic colleges (by enrolment)		
						1,000 and over	500-999	Under 500
1	2	3	4	5	6	7	8	9
Number of enrollees	946,674	388,625	151,719	135,441	78,938	65,669	73,782	52,500
Number of institutions reporting	673	82	56	103	94	50	112	176

TABLE 4.—RANGE IN NUMBER OF REGULAR FULL-TIME TEACHERS IN 673 DEGREE-GRANTING INSTITUTIONS, 1954-55

Range in number of full-time teachers per institution	All institutions	Type of institution						
		Public universities and land-grant colleges	Nonpublic universities	State colleges	Teachers colleges	Nonpublic colleges (by enrolment)		
						1,000 and over	500-999	Under 500
1	2	3	4	5	6	7	8	9
Men								
Lowest	1	31	16	11	1	20	8	2
Q_1	19	143	64	30	18	50	23	12.5
Median	34	215.5	117.5	46	27	61	32	16
Q_3	72	406	175	77	47	75	41.5	21
Highest	2,555	2,555	802	249	141	186	99	58
Women								
Lowest	0	0	0	0	0	0	0	0
Q_1	7	28	3	12	12	2	6	4
Median	13	47	14.5	19	17.5	11	11	7
Q_3	25	82	32	33	25	22	16	12
Highest	343	343	111	131	103	101	49	33
Both men and women								
Lowest	2	43	17	14	7	22	10	2
Q_1	30	183	77.5	46	30	62	36	21
Median	48	273.5	133.5	69	46.5	73	44	25
Q_3	99	472	213	103	68	105	57.5	32
Highest	2,898	2,898	860	334	237	187	99	64
Number of institutions reporting	673	82	56	103	94	50	112	176

II. Status of Present Teaching Staff

The central purpose of this study is to provide a background for the more accurate prediction of future demands for instructional personnel by colleges and universities. To that end certain facts concerning existing conditions have been brought to light in the belief that these facts are essential bases for concise planning. The effort has been directed to the elements not emphasized in other recent studies of the problem.

The first step was to raise certain questions concerning the regular full-time staff now in service, such as sex distribution, preparation, distribution among the teaching fields, age, and student-teacher ratio. These facts are provided as a point of departure for studies of future needs.

Division of Full-Time Staff by Sex

College teaching is not exclusively a man's job. In teachers colleges more than one-third (36.8 percent) of the regular full-time teachers are women. In the small nonpublic colleges the division is almost exactly one woman to two men (33.5 percent). In the nonpublic universities, at the other extreme, women comprise only 13.7 percent of the total. On the average in all types of institutions, just over 1 teacher in 5 (21.8 percent) is a woman. Table 5 shows the distribution of 63,751 full-time teachers by type of institution.

As might be expected, the ratio of men to women varies widely among the teaching fields. In such fields as engineering (99.5 percent), agriculture (95.9 percent), and vocational and industrial arts (93.1 percent) the predominance of men is taken for granted. In a number of other fields, however, the nature of the subjectmatter would not seem to suggest so strongly that it is exclusively a man's job.

These facts are shown in Table 6: Among college teachers of the physical sciences, 94.0 percent are men; in the social sciences, 89.3 percent; in psychology, 86.6 percent; in mathematics, 85.8 percent; in the biological sciences, 85.1 percent; in fine arts, 73.9 percent; in foreign languages, 72.2 percent; and in English, 71.3 percent. Only in home economics and in library science are women in the majority, with 96.4 and 71.5 percent.

The percent of men in each teaching field, by type of institution, is shown in Table 7. The distribution of full-time teachers by specific field of teaching is shown in Table 9.

Distribution by Teaching Fields

Table 8 shows the distribution of the full-time teachers in service in 1954-55 by general field of teaching and by type of institution.

TABLE 5.—NUMBER AND SEX DISTRIBUTION OF REGULAR FULL-TIME TEACHERS BY TYPE OF INSTITUTION IN 673 INSTITUTIONS, 1954-55 [a]

Type of institution [b]	Number of teachers	Percent men	Percent women
1	2	3	4
Group I	26,716	83.4%	16.6%
Group II	9,241	86.3	13.7
Group III	8,520	70.5	29.5
Group IV	5,211	63.2	36.8
Group V	4,266	79.6	20.4
Group VI	5,138	74.4	25.6
Group VII	4,659	66.5	33.5
All groups	63,751	78.2%	21.8%

[a] For this information by type of institution, see Table 7.
[b] For description of institutions according to Group, see Table 1, page 131.

TABLE 6.—NUMBER AND SEX DISTRIBUTION OF REGULAR FULL-TIME TEACHERS BY GENERAL FIELD OF TEACHING IN 673 DEGREE-GRANTING INSTITUTIONS, 1954-55

General field of teaching	Total number of teachers	Percent	
		Men	Women
1	2	3	4
Agriculture	2,797	95.9%	4.1%
Biological sciences	3,760	85.1	14.9
Business and commerce	3,293	79.8	20.2
Education	4,759	63.1	36.9
Engineering	4,440	99.5	0.5
English	5,302	71.3	28.7
Fine arts	6,854	73.9	26.1
Foreign languages	3,290	72.2	27.8
Geography	499	84.2	15.8
Health sciences	2,371	67.3	32.7
Home economics	1,544	3.6	96.4
Industrial and vocational arts	923	93.1	6.9
Journalism	391	91.8	8.2
Law	544	98.3	1.7
Library science	1,376	28.5	71.5
Mathematics	2,567	85.8	14.2
Philosophy	891	95.1	4.9
Physical and health education	3,404	61.5	38.5
Physical sciences	5,168	94.0	6.0
Psychology	1,586	86.6	13.4
Religion	897	92.6	7.4
Social sciences	6,938	89.3	10.7
Others	157	61.1	38.9
All fields of teaching	63,751	78.2%	21.8%

TABLE 7.—NUMBER OF REGULAR FULL-TIME TEACHERS AND PERCENT WHO ARE MEN IN EACH GENERAL FIELD OF TEACHING, BY TYPE OF INSTITUTION, IN 673 DEGREE-GRANTING INSTITUTIONS, 1954-55

General field of teaching	Public universities and land-grant colleges		Nonpublic universities		State colleges		Teachers colleges		Nonpublic colleges (by enrolment)					
									1,000 and over		500-999		Under 500	
	Number of teachers	Percent men	Number of teachers	Percent men	Number of teachers	Percent men	Number of teachers	Percent men	Number of teachers	Percent men	Number of teachers	Percent men	Number of teachers	Percent men
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Agriculture	2,403	95.2%	11	100.0%	301	100.0%	31	100.0%	20	95.0%	12	100.0%	19	100.0%
Biological sciences	1,892	89.3	396	87.9	447	85.0	251	79.3	210	73.3	308	81.5	256	69.9
Business and commerce	1,314	87.2	601	90.5	572	67.5	187	63.1	172	84.9	257	68.1	190	59.5
Education	1,555	68.3	465	75.9	1,007	60.1	1,007	52.0	152	67.8	279	62.7	294	62.2
Engineering	2,712	99.5	1,035	99.6	334	99.4	8	100.0	230	99.6	70	100.0	51	96.1
English	1,808	78.5	771	83.4	750	58.9	517	59.4	461	75.9	530	68.1	465	55.3
Fine arts	2,214	82.1	761	81.5	1,062	68.4	801	63.7	504	75.0	705	70.6	807	63.8
Foreign languages	1,119	81.5	606	80.5	265	56.6	119	51.3	385	71.4	416	67.1	380	55.3
Geography	208	93.8	32	90.6	99	82.8	111	69.4	24	70.8	11	81.8	14	78.6
Health sciences	1,687	75.6	423	61.2	59	28.8	37	29.7	50	35.0	72	15.3	43	9.3
Home economics	749	4.1	78	.....	317	2.2	151	7.3	67	10.4	82	.....	100	.....
Industrial and vocational arts	306	90.5	44	81.8	255	98.0	218	93.6	59	98.3	25	80.0	16	87.5
Journalism	225	94.2	53	96.2	62	87.1	14	85.7	9	100.0	17	88.2	11	54.5
Law	329	98.5	173	97.7	13	100.0	.....	.....	20	100.0	5	100.0	4	100.0
Library science	415	33.0	137	35.8	281	28.8	216	22.2	69	24.6	144	24.3	114	21.9
Mathematics	953	86.4	444	92.6	372	82.3	191	77.0	204	89.7	221	87.3	182	76.4
Philosophy	206	97.6	252	96.0	62	87.1	12	83.3	116	92.2	118	97.5	125	94.4
Physical and health education	1,113	62.4	328	66.2	640	58.4	481	54.7	230	65.7	322	68.0	290	60.0
Physical sciences	2,071	96.2	967	96.3	647	94.4	271	93.0	428	89.7	440	91.6	344	83.1
Psychology	628	91.9	266	89.1	155	80.0	118	80.5	121	86.0	164	83.5	134	74.6
Religion	35	100.0	207	98.6	8	75.0	1	.....	165	93.9	242	90.9	239	88.3
Social sciences	2,650	90.6	1,181	92.6	810	87.0	469	86.1	558	89.8	689	88.5	581	82.6
Others	124	50.8	10	100.0	2	100.0	.....	.....	12	100.0	9	100.0	.....	.....
Total	26,716	83.4%	9,241	86.3%	8,520	70.5%	5,211	63.2%	4,266	79.6%	5,138	74.4%	4,659	66.5%

TABLE 8.—DISTRIBUTION OF REGULAR FULL-TIME TEACHERS BY GENERAL FIELDS OF TEACHING IN 673 DEGREE-GRANTING INSTITUTIONS, 1954-55

General field of teaching	All institutions		Type of institution													
			Public universities and land-grant colleges		Nonpublic universities		State colleges		Teachers colleges		Nonpublic colleges (by enrolment)					
											1,000 and over		500–999		Under 500	
	Number of teachers	Percent of total	Number of teachers	Percent of total	Number of teachers	Percent of total	Number of teachers	Percent of total	Number of teachers	Percent of total	Number of teachers	Percent of total	Number of teachers	Percent of total	Number of teachers	Percent of total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Agriculture	2,797	4.4%	2,403	9.0%	11	0.1%	301	3.5%	31	0.6%	20	0.5%	12	0.2%	19	0.4%
Biological sciences	3,760	5.9	1,892	7.1	396	4.3	447	5.3	251	4.8	210	4.9	308	6.0	256	5.5
Business and commerce	3,293	5.2	1,314	4.9	601	6.5	572	6.7	187	3.6	172	4.0	257	5.0	190	4.1
Education	4,759	7.5	1,555	5.8	465	5.0	1,007	11.8	1,007	19.3	152	3.6	279	5.4	294	6.3
Engineering	4,440	7.0	2,712	10.2	1,035	11.2	334	3.9	8	0.2	230	5.4	70	1.4	51	1.1
English	5,302	8.3	1,808	6.8	771	8.3	750	8.8	517	9.9	461	10.8	530	10.3	465	10.0
Fine arts	6,854	10.8	2,214	8.3	761	8.2	1,062	12.5	801	15.4	504	11.8	705	13.7	807	17.3
Foreign languages	3,290	5.2	1,119	4.2	606	6.6	265	3.1	119	2.3	385	9.0	416	8.1	380	8.2
Geography	499	0.8	208	0.8	32	0.3	99	1.2	111	2.1	24	0.5	11	0.2	14	0.3
Health sciences	2,371	3.7	1,687	6.3	423	4.6	59	0.7	37	0.7	50	1.2	72	1.4	43	0.9
Home economics	1,544	2.4	749	2.8	78	0.8	317	3.7	151	2.9	67	1.6	82	1.6	100	2.1
Industrial and vocational arts	923	1.4	306	1.1	44	0.5	255	3.0	218	4.2	59	1.4	25	0.5	16	0.3
Journalism	391	0.6	225	0.8	53	0.6	62	0.7	14	0.3	9	0.2	17	0.3	11	0.2
Law	544	0.9	329	1.2	173	1.9	13	0.2	.....	.....	20	0.5	5	0.1	4	0.1
Library science	1,376	2.1	415	1.5	137	1.5	281	3.3	216	4.1	69	1.6	144	2.8	114	2.5
Mathematics	2,567	4.0	953	3.6	444	4.8	372	4.4	191	3.7	204	4.8	221	4.3	182	3.9
Philosophy	891	1.4	206	0.8	252	2.7	62	0.7	12	0.2	116	2.7	118	2.3	125	2.7
Physical and health education	3,404	5.3	1,113	4.2	328	3.6	640	7.5	481	9.2	230	5.4	322	6.3	290	6.2
Physical sciences	5,168	8.1	2,071	7.8	967	10.5	647	7.6	271	5.2	428	10.0	440	8.6	344	7.4
Psychology	1,586	2.5	628	2.3	266	2.9	155	1.8	118	2.3	121	2.8	164	3.2	134	2.9
Religion	897	1.4	35	0.1	207	2.2	8	0.1	1	*	165	3.9	242	4.7	239	5.1
Social sciences	6,938	10.9	2,650	9.9	1,181	12.8	810	9.5	469	9.0	558	13.1	689	13.4	581	12.5
Others	157	0.2	124	0.5	10	0.1	2	*	.....	.....	12	0.3	9	0.2	.....	.....
All fields of teaching	63,751	100.0%	26,716	100.0%	9,241	100.0%	8,520	100.0%	5,211	100.0%	4,266	100.0%	5,138	100.0%	4,659	100.0%

* Less than 1/10 of 1 percent.

TABLE 9.—DISTRIBUTION OF FULL-TIME TEACHERS, BY SPECIFIC TEACHING FIELDS AND BY SEX, IN 673 DEGREE-GRANTING INSTITUTIONS, 1954-55

Specific field of teaching	Total number of teachers	Percent distribution by field of teaching	Men teachers		Women teachers	
			Number	Percent	Number	Percent
1	2	3	4	5	6	7
Agriculture	2,797	4.4%	2,681	95.9%	116	4.1%
Animal husbandry	434	0.7	432	99.5	2	0.5
Forestry	266	0.4	264	99.2	2	0.8
All other and unspecified	2,097	3.3	1,985	94.7	112	5.3
Biological sciences	3,760	5.9	3,201	85.1	559	14.9
Anatomy	149	0.2	129	86.6	20	13.4
Bacteriology	228	0.4	193	84.6	35	15.4
Biochemistry	141	0.2	133	94.3	8	5.7
Biology	992	1.5	817	82.4	175	17.6
Botany	488	0.8	420	86.1	68	13.9
Entomology	151	0.2	150	99.3	1	0.7
Physiology	182	0.3	131	72.0	51	28.0
Zoology	618	1.0	532	86.1	86	13.9
All other and unspecified	811	1.3	696	85.8	115	14.2
Business and commerce	3,293	5.2	2,628	79.8	665	20.2
Accounting	967	1.5	869	89.9	98	10.1
All others	2,326	3.7	1,759	75.6	567	24.4
Education	4,759	7.5	3,005	63.1	1,754	36.9
Engineering	4,440	7.0	4,417	99.5	23	0.5
Aeronautical	131	0.2	131	100.0	0	0.0
Chemical	329	0.5	326	99.1	3	0.9
Civil	752	1.2	752	100.0	0	0.0
Electrical	835	1.3	831	99.5	4	0.5
Mechanical	994	1.6	991	99.7	3	0.3
All other and unspecified	1,399	2.2	1,386	99.1	13	0.9
English	5,302	8.3	3,779	71.3	1,523	28.7
Fine arts	6,854	10.8	5,064	73.9	1,790	26.1
Architecture	334	0.5	323	96.7	11	3.3
Music	3,247	5.1	2,360	72.7	887	27.3
Speech and dramatics	1,720	2.7	1,288	74.9	432	25.1
All others and unspecified	1,553	2.5	1,093	70.4	460	29.6
Foreign languages	3,290	5.2	2,375	72.2	915	27.8
Classical	419	0.7	320	76.4	99	23.6
French	987	1.5	647	65.6	340	34.4
German	690	1.1	552	80.0	138	20.0
Spanish	764	1.2	523	68.5	241	31.5
Russian	69	0.1	52	75.4	17	24.6
All other and unspecified	361	0.6	281	77.8	80	22.2
Geography	499	0.8	420	84.2	79	15.8
Health sciences	2,371	3.7	1,596	67.3	775	32.7
Dentistry	220	0.3	202	91.8	18	8.2
Medicine	709	1.1	629	88.7	80	11.3
Nursing	570	0.9	9	1.6	561	98.4
Optometry	34	0.1	33	97.1	1	2.9
Pharmacy	267	0.4	249	93.3	18	6.7
Public health	97	0.2	53	54.6	44	45.4
Veterinary medicine	218	0.3	212	97.2	6	2.8
All other and unspecified	256	0.4	209	81.6	47	18.4
Home economics	1,544	2.4	56	3.6	1,488	96.4
Industrial and vocational arts	923	1.4	859	93.1	64	6.9
Journalism	391	0.6	359	91.8	32	8.2
Law	544	0.9	535	98.3	9	1.7
Library science	1,376	2.1	392	28.5	984	71.5
Mathematics	2,567	4.0	2,202	85.8	365	14.2
Philosophy	891	1.4	847	95.1	44	4.9
Physical and health education	3,404	5.3	2,092	61.5	1,312	38.5
Physical sciences	5,168	8.1	4,859	94.0	309	6.0
Astronomy	68	0.1	58	85.3	10	14.7
Chemistry	2,445	3.8	2,241	91.7	204	8.3
Geology	538	0.9	523	97.2	15	2.8
Metallurgy	84	0.1	84	100.0	0	0.0
Meteorology	58	0.1	58	100.0	0	0.0
Physics	1,657	2.6	1,607	97.0	50	3.0
All other and unspecified	318	0.5	288	90.6	30	9.4
Psychology	1,586	2.5	1,374	86.6	212	13.4
Religion	897	1.4	831	92.6	66	7.4
Social sciences	6,938	10.9	6,195	89.3	743	10.7
Anthropology	139	0.2	119	85.6	20	14.4
Economics	1,576	2.5	1,499	95.1	77	4.9
History	2,160	3.4	1,911	88.5	249	11.5
International relations	56	0.1	52	92.9	4	7.1
Political science	1,066	1.7	1,001	93.9	65	6.1
Sociology	1,112	1.7	971	87.3	141	12.7
All other and unspecified	829	1.3	642	77.4	187	22.6
Others	157	0.2	96	61.1	61	38.9
Total	63,751	100.0%	49,863	78.2%	13,888	21.8%

Of the total number of teachers reported, social sciences leads with 6938, and fine arts is second with 6854; these groups are 10.9 and 10.8 percent, respectively, of the total. At the other extreme, law, journalism, and geography have less than 1 percent each, and industrial and vocational arts, philosophy, and religion have 1.4 percent each.

When the full-time staffs of the different types of institutions are examined, wide variations in the distribution of teachers among the fields are found. In Group I, engineering claims the largest number (10.2 percent), followed by social sciences (9.9 percent). In Group II, social sciences has 12.8 percent, engineering 11.2 percent, and physical sciences 10.5 percent.

Among the single-unit institutions different distributions of the full-time teachers are found. In Group III, fine arts leads with 12.5 percent. Next comes education with 11.8 percent, then social sciences with 9.5 percent. In Group IV, as might be expected in institutions emphasizing the preparation of teachers, education takes almost one-fifth (19.3 percent) of the staff. Fine arts, reflecting the emphasis upon music and public speaking in the training of teachers, is second with 15.4 percent.

Among Groups V, VI, and VII—the nonpublic colleges—similar patterns are found; social sciences, fine arts, and English are emphasized by the concentration of teachers in these fields.

Wide differences in emphasis upon certain other fields appear as we examine conditions in the various types of institutions. For example, foreign languages, with 5.2 percent of all teachers on the average and only 2.3 percent in Group IV, requires the services of 8.1 to 9.0 percent of the teachers in Groups V, VI, and VII. Biological sciences ranges from 7.1 percent in Group I to only 4.3 percent of the total teaching force in Group II. On the other hand, Group II leads in requiring 10.5 percent of its teachers in the physical sciences field, while Group IV devotes only 5.2 percent to this field.

Mathematics is constant in its requirement of about 1 of every 25 full-time teachers; the range is from 3.6 percent in Group I to 4.8 percent in Groups II and V. English varies from a low of 6.8 percent in Group I to a high of 10.8 percent in Group V. Physical and health education ranges from 3.6 percent in Group II to 9.2 percent in Group IV.

Preparation of Full-Time Staff

An NEA Research Division study of the preparation of college and university teachers in 1953-54 (covering 637 representative institutions of all types) shows that many of the full-time teachers in service had not yet earned the master's degree.[1] The evidence would seem to indicate that higher education institutions are entering the new era of expanded enrolments with an inadequately prepared staff.

For example: in 1953-54 only 40.5 percent of the total full-time staff held the doctor's degree; 28.2 percent held no more than the master's degree; 10.4 percent had not yet attained master's degree status. The remaining 20.9 percent were well along toward the doctor's degree.

Preparation of the total full-time teaching staff in one type of institution is not necessarily indicative of conditions to be found in another type of institution. For example, in nonpublic universities 51.9 percent of the full-time staff were found to hold the doctor's degree, but as many as 11.7 percent had not earned the master's degree. In teachers colleges, on the other hand, only 29.9 percent held the doctor's degree, but only 3.2 percent were below master's degree status. Again, in the nonpublic universities only 15.5 percent were substantially beyond the master's degree—on the way to the doctor's degree—while in teachers colleges no fewer than 30.8 percent were at this level.

When the single-unit institutions were considered, the nonpublic colleges had on the average 35.2 percent holders of the doctor's degree, while in the public institutions only 31.4 percent were at this level of preparation. At the other end of the preparation scale, 12.4 percent of the teachers in the nonpublic colleges were below master's degree status while only 5.4 percent of those in the public single-unit institutions were so classified. Table 10 shows further details.

The same study[2] shows wide variation of practice, among the different types of insti-

[1] National Education Association, Research Division. "Instructional Staff Practices and Policies in Degree-Granting Institutions, 1953-54." *Research Bulletin* 32: 165; December 1954.

[2] *Ibid.*, p. 176.

tutional support of its full-time teachers who, after six or seven years of service, wish to take leave for further graduate study. Almost one-half of all institutions (49.3 percent) reported they had no regular policy in operation by which they financially aid the teacher on leave for this purpose. This would seem to be further evidence that higher education institutions face the prospect of increased enrolments with teaching staffs not fully prepared to serve their present student bodies.

The Age Range of the Full-Time Staff

If all colleges and universities are to prepare to serve a greatly enlarged student body at a future date, they must not only enlarge their teaching staffs, they must continually make replacements. Total staff needs until, say, 1965 or 1970 will depend not only upon total enrolments at that time, but also upon the number of present teachers who will not be in service when that date arrives.

TABLE 10.—NUMBER AND PERCENT OF FULL-TIME INSTRUCTIONAL STAFF MEMBERS AT THE VARIOUS LEVELS OF PREPARATION, BY TYPE OF INSTITUTION, IN 637 DEGREE-GRANTING INSTITUTIONS, 1953-54

Type of institution	Number of instructional staff	Number and percent of staff at the various levels of preparation							
		Doctor's degree		Master's degree plus at least one year		Master's degree		Less than master's degree	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10
I. Public universities and land-grant colleges	20,078	8,832	44.0%	3,477	17.3%	5,463	27.2%	2,306	11.5%
II. Nonpublic universities	10,925	5,675	51.9	1,689	15.5	2,287	20.9	1,274	11.7
III. State colleges	7,565	2,458	32.5	1,949	25.8	2,626	34.7	532	7.0
IV. Teachers colleges	5,481	1,640	29.9	1,685	30.8	1,979	36.1	177	3.2
Nonpublic colleges (by enrolment):									
V. 1,000 and over	4,745	1,805	38.0	935	19.7	1,355	28.6	650	13.7
VI. 500–999	5,486	1,968	35.9	1,358	24.7	1,561	28.5	599	10.9
VII. Under 500	4,439	1,390	31.3	1,173	26.4	1,311	29.6	565	12.7
All institutions	58,719	23,768	40.5%	12,266	20.9%	16,582	28.2%	6,103	10.4%

Source: National Education Association, Research Division. "Instructional Staff Practices and Policies in Degree-Granting Institutions, 1953-54." *Research Bulletin* 32: 165; December 1954. (Derived)

TABLE 11.—NUMBER OF REGULAR FULL-TIME TEACHERS, BY AGE, IN 661 DEGREE-GRANTING INSTITUTIONS, 1954-55

Age	Total number of teachers		Men		Women	
	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7
Under 25 years	542	0.9%	234	0.5%	308	2.3%
25–34 years	14,146	22.9	11,538	24.0	2,608	19.2
35–44 years	19,827	32.1	16,555	34.4	3,272	24.1
45–54 years	15,724	25.5	11,634	24.2	4,090	30.1
55–60 years	6,300	10.2	4,401	9.1	1,899	14.0
61 years	842	1.4	582	1.2	260	1.9
62 years	810	1.3	596	1.2	214	1.6
63 years	726	1.2	527	1.1	199	1.5
64 years	662	1.1	433	0.9	229	1.7
65 years	609	1.0	428	0.9	181	1.3
66 years	364	0.6	273	0.6	91	0.7
67 years	308	0.5	228	0.5	80	0.6
68 years	250	0.4	192	0.4	58	0.4
69 years	229	0.4	190	0.4	39	0.3
70 years	153	0.2	125	0.3	28	0.2
Over 70 years	175	0.3	155	0.3	20	0.1
All ages	61,667	100.0%	48,091	100.0%	13,576	100.0%
Q_1	35.4		35.2		36.5	
Median	43.1		42.4		46.5	
Q_3	52.5		51.7		54.8	

TABLE 12.—PERCENT OF REGULAR FULL-TIME TEACHERS AT EACH AGE LEVEL, BY SEX, AND BY TYPE OF INSTITUTION, 1954-55

Age	Public universities and land-grant colleges		Nonpublic universities		State colleges		Teachers colleges		Nonpublic colleges (by enrolment)					
									1,000 and over		500–999		Under 500	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Under 25 years	0.3%	2.2%	0.4%	2.4%	0.5%	1.6%	0.3%	1.1%	0.8%	3.1%	0.8%	2.9%	1.2%	3.7%
25–34 years	23.7	20.5	24.2	25.6	22.7	14.7	19.1	13.0	27.0	23.6	25.6	20.5	27.8	21.8
35–44 years	35.1	24.7	34.0	22.8	36.7	24.8	36.0	23.4	31.8	24.7	32.0	24.7	30.6	22.5
45–54 years	24.8	30.5	23.5	27.5	25.2	32.7	27.1	33.5	22.3	26.0	22.8	29.7	20.6	25.4
55–60 years	9.2	12.9	9.6	12.6	7.8	15.3	9.4	17.3	9.8	13.8	9.0	12.0	9.8	13.6
61 years	1.2	1.8	1.4	1.8	1.0	1.7	1.4	2.2	1.3	2.6	1.2	1.4	1.1	2.3
62 years	1.2	1.4	1.3	1.6	1.2	1.4	1.5	1.6	1.2	1.0	1.6	1.6	1.0	2.5
63 years	1.0	1.2	1.4	1.5	0.8	1.7	1.5	2.2	1.0	1.6	1.4	1.1	1.1	1.2
64 years	0.8	1.7	1.0	1.5	0.9	1.7	1.0	1.9	0.9	1.7	1.0	1.5	0.9	1.7
65 years	0.8	1.1	0.7	1.1	0.7	1.8	0.7	1.1	1.2	1.1	1.3	1.9	1.6	1.5
66 years	0.5	0.7	0.6	0.3	0.5	0.7	0.7	1.0	0.6	0.1	0.6	0.7	0.7	0.7
67 years	0.5	0.3	0.4	0.5	0.5	0.7	0.5	0.9	0.2	0.1	0.6	0.7	0.6	1.0
68 years	0.3	0.4	0.4	0.2	0.6	0.4	0.3	0.5	0.3	0.3	0.4	0.6	0.7	0.6
69 years	0.3	0.3	0.4	0.2	0.5	0.5	0.4	0.2	0.5	0.1	0.5	0.3	0.5	0.3
70 years	0.2	0.2	0.2	0.0	0.3	0.2	0.1	0.1	0.3	0.1	0.5	0.2	0.6	0.7
Over 70 years	0.1	0.1	0.5	0.4	0.1	0.1	0.0	0.0	0.8	0.1	0.7	0.2	1.2	0.5
All ages	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total number of teachers	20,950	4,360	7,906	1,225	5,920	2,491	3,253	1,890	3,344	834	3,704	1,227	3,014	1,549
Q_1	35.3	35.9	35.1	33.8	35.5	38.5	35.6	39.7	34.0	34.3	34.5	35.6	33.5	34.8
Median	42.4	45.8	42.4	44.6	42.3	47.7	43.5	48.7	42.0	44.4	42.4	45.6	41.8	45.8
Q_3	51.4	54.0	51.9	53.8	51.0	55.4	52.3	56.4	51.9	54.1	52.3	54.0	52.4	55.7

TABLE 13.—NUMBER AND PERCENT OF INSTITUTIONS, BY COMPULSORY AGE FOR RETIREMENT AND PERMISSION TO REMAIN IN SERVICE BEYOND COMPULSORY AGE IN DEGREE-GRANTING INSTITUTIONS, 1954-55

Item	All institutions		Type of institution													
			Public universities and land-grant colleges		Nonpublic universities		State colleges		Teachers colleges		Nonpublic colleges (by enrolment)					
											1,000 and over		500–999		Under 500	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Designated retirement age:																
60 years	1	0.2%	...	.....	...	.....	...	.....	1	1.1%	...	.....	...	.....	...	.....
62 years	1	0.2	...	.....	...	.....	...	.....	1	1.1	...	.....	...	.....	...	.....
65 years	265	40.0	23	28.1%	26	47.3%	39	38.2%	35	37.2	26	52.0%	53	48.2%	63	37.3%
66 years	3	0.4	...	.....	...	.....	...	.....	2	2.1	...	.....	...	.....	1	0.6
67 years	22	3.3	11	13.4	...	.....	4	3.9	3	3.2	...	.....	2	1.8	2	1.2
68 years	55	8.3	7	8.5	7	12.7	3	3.0	7	7.4	4	8.0	10	9.1	17	10.0
70 years	247	37.3	40	48.8	15	27.3	50	49.0	45	47.9	13	26.0	38	34.6	46	27.2
Over 70 years	5	0.8	...	.....	...	.....	1	1.0	...	.....	...	.....	2	1.8	2	1.2
No age limit	63	9.5	1	1.2	7	12.7	5	4.9	...	.....	7	14.0	5	4.5	38	22.5
All institutions reporting	662	100.0%	82	100.0%	55	100.0%	102	100.0%	94	100.0%	50	100.0%	110	100.0%	169	100.0%
Teaching service beyond retirement age:																
Permitted	378	63.6%	46	57.5%	40	85.1%	35	36.5%	38	40.9%	29	69.0%	85	82.5%	105	78.9%
Not permitted	216	36.4	34	42.5	7	14.9	61	63.5	55	59.1	13	31.0	18	17.5	28	21.1
All institutions reporting	594	100.0%	80	100.0%	47	100.0%	96	100.0%	93	100.0%	42	100.0%	103	100.0%	133	100.0%

TABLE 14.—NUMBER AND PERCENT OF INSTITUTIONS HAVING AND NOT HAVING SOCIAL SECURITY COVERAGE, 660 DEGREE-GRANTING INSTITUTIONS, 1954-55

Item	All institutions		Type of institution													
			Public universities and land-grant colleges		Nonpublic universities		State colleges		Teachers colleges		Nonpublic colleges (by enrolment)					
											1,000 and over		500–999		Under 500	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Extent of integration of retirement plan with OASI:																
Integrated	396	60.0%	24	29.6%	49	89.1%	14	13.7%	22	23.6%	45	90.0%	98	89.9%	144	84.7%
Not integrated, but contemplated	65	9.9	26	32.1	1	1.8	22	21.6	13	14.0	1	2.0	2	1.8	...	.....
Not integrated	179	27.1	29	35.8	3	5.5	65	63.7	58	62.4	4	8.0	7	6.5	13	7.7
Have only OASI	12	1.8	2	2.5	...	.....	...	.....	...	.....	...	.....	2	1.8	8	4.7
Have no retirement plan	8	1.2	...	.....	2	3.6	1	1.0	...	.....	...	.....	...	.....	5	2.9
All institutions reporting	660	100.0%	81	100.0%	55	100.0%	102	100.0%	93	100.0%	50	100.0%	107	100.0%	170	100.0%

TABLE 15.—RATIO OF FULL-TIME COLLEGE STUDENTS TO REGULAR FULL-TIME TEACHERS, BY TYPE OF INSTITUTION, IN 673 DEGREE-GRANTING INSTITUTIONS, 1954-55

Type of institution[a]	Number of full-time college students	Number of full-time teachers	Ratio
1	2	3	4
Group I	388,625	26,716	14.5 to 1
Group II	151,719	9,241	16.4 to 1
Group III	135,441	8,520	15.9 to 1
Group IV	78,938	5,211	15.1 to 1
Group V	65,669	4,266	15.4 to 1
Group VI	73,782	5,138	14.4 to 1
Group VII	52,500	4,659	11.3 to 1
All institutions	946,674	63,759	14.8 to 1

[a] For description of institutions according to Group, see Table 1, page 131.

Note: The meaning of these ratios is limited because (a) temporary full-time teachers are not included, and (b) neither part-time students nor part-time teachers are included.

The effect of deaths and withdrawals is not known, but the age distribution of the total staff in 1954-55 shows concisely the rate at which teachers now in service are advancing toward retirement age. Table 11 presents the pertinent facts concerning the 61,667 full-time teachers in service in 661 reporting institutions.

Teachers beyond 60 years of age account for 8.4 percent of the total—7.8 percent of the men and 10.3 percent of the women. Those within the 55-60 range include another 10.2 percent of the total—9.1 percent of the men and 14.0 percent of the women. And those within the 45-54 range include still another 25.5 percent. This means that, of the present staff, well over one-third will have attained retirement age before the four million children born in 1954 reach college-entrance age.

Table 11 shows that the median age of all teachers in full-time service in 1954-55 was 43.1 years—men, 42.4, and women, 46.5 years. One-fourth of all were over 52.5 years of age and one-fourth were under 43.1 years. Table 12 shows the percent of regular full-time teachers at each age level, by sex and by type of institution.

Service Beyond the Retirement Age

At what age is retirement from full-time teaching service required, and how many institutions maintain the practice of permitting exceptions?

Light is thrown upon this two-fold question in Table 13. Among the 662 reporting institutions, 40 percent maintain a 65-year retirement age; 37.3 percent stipulate 70 years as the limit; 9.5 percent have no regulation in force, and the others scatter their practices from 60 years to more than 70 years of age. More than half of the institutions not maintaining a regulation are in Group VII.

But almost two-thirds (63.6 percent) of all those maintaining a regulation permit exceptions to it. As many as 85.1 percent of those in Group II do so; at the other extreme only 36.5 percent of those in Group III make a practice of violating the regulation. In every case the exception is made on an individual basis, with discretion being in the hands of the administration. This widespread practice of permitting individuals, under certain circumstances, to remain in service beyond the stipulated retirement age would seem to be a factor in the over-all supply-demand problem.

The Impact of OASI

Recently enacted legislation extending the possible coverage of social security bespeaks the participation of more colleges and universities in this type of retirement provision. At present 61.8 percent of the 660 reporting institutions participate. Another 9.9 percent contemplate doing so. Of this total (71.7 percent) only a small number will find a conflict between their existing retirement age and the 65-year age provided in OASI. Details are given in Table 14.

TABLE 16.—NUMBER OF PART-TIME TEACHERS IN SERVICE, BY TYPE OF INSTITUTION, IN 580 DEGREE-GRANTING INSTITUTIONS IN MARCH 1955

Type of institution[a]	Number of institutions reporting	Number of part-time teachers	Average number per institution
1	2	3	4
Group I	59	4,505	76.4
Group II	49	7,670	156.5
Group III	91	934	10.3
Group IV	80	368	4.6
Group V	48	836	17.4
Group VI	99	1,128	11.4
Group VII	154	820	5.3
All institutions	580	16,261	28.0

[a] For description of institutions according to Group, see Table 1, page 131.

TABLE 17.—NUMBER OF TEMPORARY FULL-TIME TEACHERS, BY TYPE OF INSTITUTION, IN SERVICE IN 671 DEGREE-GRANTING INSTITUTIONS, 1954-55

Type of institution[a]	Number of institutions reporting	Number of temporary full-time teachers	Average number per institution
1	2	3	4
Group I	80	1,495	18.7
Group II	56	195	3.5
Group III	103	236	2.3
Group IV	94	160	1.7
Group V	50	210	4.2
Group VI	112	183	1.6
Group VII	176	140	0.8
All institutions	671	2,619	3.9

[a] For description of institutions according to Group, see Table 1, page 131.

Student-Teacher Ratio

Numerous authorities, in trying to compute the number of college and university teachers to be needed at a designated future date, seek to determine the probable number of students to be taught, and then divide that total by a figure which would represent the student-teacher ratio at that time. Such procedure assumes the preservation of the present ratio. But, like the pupil-teacher ratio in elementary and secondary schools, the prevailing assumptions are being subjected to re-examination. A desirable—and feasible—ratio in an institution emphasizing one kind of curriculum may not be practicable in another situation. Differences may further be justified from subject to subject within an institution.

A study of prevailing student-teacher ratios was not a specific part of this investigation. A broad, general picture is shown, however, in Table 15. In interpreting these figures, it must be kept in mind that they are based on total full-time students and total full-time teachers only. The presence or absence of large numbers of either part-time students or part-time teachers would naturally modify the meaning of the relationships shown in the table, as would also the presence or absence of temporary full-time teachers.

Part-Time and Temporary Teachers

The number of part-time students enrolled in the participating institutions could not be obtained. The number of part-time teachers in service is shown in Table 16 and the number of temporary full-time teachers in service is shown in Table 17.

In Group I the number of part-time teachers in service averages 76.4 per institution; in Group II the average is 156.5 per institution. These two groups are the multiple-unit institutions, however, and the availability of many graduate students to participate in the undergraduate instructional program is recognized. It must also be noted that the reported part-time teachers were in service in March 1955; it does not follow that all of them were in service during both semesters or all three quarters of the academic year.

Temporary full-time teachers are not sufficiently numerous in any type of institution to be considered a significant factor. Their distribution among the general fields of teaching, and the percent of men within each group, are shown in Table 18.

Conclusion

It is generally recognized that college and university enrolments will expand greatly during the next 15 years, and thus teaching staffs must be enlarged. To plan most effectively, ad-

TABLE 18.—DISTRIBUTION OF TEMPORARY FULL-TIME TEACHERS, BY GENERAL FIELDS OF TEACHING AND PERCENT OF MEN IN EACH FIELD IN 671 INSTITUTIONS, 1954-55

General field of teaching	Number of teachers	Percent distribution by fields	Percent of men in each field
1	2	3	4
Agriculture	40	1.5%	95.0%
Biological sciences	128	4.9	74.2
Business and commerce	138	5.3	74.6
Education	221	8.5	54.8
Engineering	130	5.0	97.7
English	302	11.5	59.6
Fine arts	291	11.1	67.4
Foreign languages	117	4.5	69.2
Geography	14	0.5	92.9
Health sciences	86	3.3	44.2
Home economics	77	3.0	1.3
Industrial and vocational arts	27	1.0	85.2
Journalism	14	0.5	92.9
Law	18	0.7	100.0
Library science	49	1.9	16.3
Mathematics	145	5.5	74.5
Philosophy	40	1.5	100.0
Physical and health education	110	4.2	48.2
Physical sciences	194	7.4	86.1
Psychology	55	2.1	85.5
Religion	24	0.9	95.8
Social sciences	333	12.7	89.5
Others	66	2.5	69.7
Total	2,619	100.0%	70.1%

ministrative officials need numerous facts not now generally available concerning the teaching staffs currently in service. Among these needed facts are (a) the sex distribution, the preparation, the distribution by teaching field, and the range of ages of all full-time teachers; (b) the existing regulations governing retirement; (c) the administration of these regulations and influences likely to affect them; (d) the present student-teacher ratios; and (e) the number of part-time and the number of temporary full-time teachers in service. It has been the purpose of this section to present up-to-date information in these areas. The foregoing data, having been reported by a majority of the institutions in each of the seven groups, should be generally representative of the situation at large.

Determination of staff needs is one of those problems which keeps the so-called ivory tower of higher education from being an ivory tower. True, a certain amount of dreaming about numbers on the staff does occur: the idea of a student on one end of a log, a teacher on the other, has a certain glamor which has beguiled nearly every teacher and administrator in the land. Finally, however, the dream fades in the light of hard budgetary facts; the administrator and his staff turn to wrestling with the questions: How many teachers are needed at this college? How may that need be justified, both to ourselves and to those who set the budget?—Enochs, James B. "What Factors Should Be Considered by an Institution in Determining Its Staff Needs?" *Current Issues in Higher Education, 1955.* Washington, D. C.: Association for Higher Education, a department of the National Education Association, 1955. p. 201.

III. The Demand for Teachers

In the free operation of the laws of supply and demand, various meanings are applied to each of these terms. When one speaks of the *supply* of properly prepared people to perform a certain function, for example, he must take into account many factors not present when considering an article of merchandise. In like manner, the term *demand* has concise meaning only when the conditioning factors are understood and weighed.

Broadly speaking, the task of assessing the demand for college teachers may be approached in either of two distinctly different ways. One way is based upon the effort to foresee such future conditions as these: the number of new students who will probably seek admission, the length of time they will probably remain in college, the manner in which they will distribute themselves among the fields and subjects of instruction, and the extent and variety of special services likely to be required. Also to be predicted are the student-teacher ratio to be maintained, the possible reorganization of instructional procedures, the extent to which subjectmatter may be further proliferated, and necessary adjustment to the probable limitation of plant facilities. In essence, the prediction of future *demand* for teachers would be based upon the effort to see into the future and to weigh in advance the impact of conditions likely to occur.

Another approach may be quite different; it may depend chiefly upon an effort to measure, more concisely than has been done, the particular factors contributing to existing conditions. With these factors thus more clearly in view, the influences and conditions which brought them about may be assessed. Such steps would lay the groundwork for a study of trends.

This latter approach is widely used in business. The manufacturer, for example, considers as basic an accurate record of the number of units purchased by the public (demanded) last month, last year, and at other set times in the past. He determines his production schedule first upon past sales and then upon his evaluation of future conditions.

The study of the demand for college and university teachers, as reported in this bulletin, employed this latter approach. Future demand, it is assumed, can be most meaningfully approached thru an analysis of existing conditions. And one vital condition to be determined is this: What is the *present* demand?

Concept of Demand for Teachers

As used in this study, the demand for teachers requires an understanding of three elements: first, the meaning of the term *new* teachers; second, a method of identifying and describing some of the characteristics of the *new* teachers within a known period of time; third, the recognizable limitations of the two preceding steps.

As a prefatory step the *regular full-time teacher* must be defined. This includes only those who are assumed to be continuing members of the instructional staff—on tenure, or in line to attain tenure status according to the regulations of the institution. This category excludes part-time teachers, temporary full-time teachers, and all others who, by mutual understanding, will automatically be discontinued at a designated future date.

A *new* teacher is one who becomes a *regular full-time teacher,* not having been so engaged *the preceding academic year*. In other words, the *new* teacher comes from outside and becomes a member of the total corps of regular full-time teachers.

Records are not available to show the number of new teachers employed by the colleges and universities of America during an academic year. In other words, there is no existing record of the *demand,* as the annual demand has been met in past years by the introduction of persons from outside the regular full-time corps.

This study has undertaken to measure the *demand,* on the basis of this concept, during the 1953-54 and 1954-55 years. It is assumed that this two-year report will comprise a bench mark not unlike the manufacturer's record of his sales for the past two years—it is the springboard from which future demand may be predicted as the impact of observable changing conditions is assessed.

Limitation of the Demand Concept

The foregoing definition of the demand for teachers has this sharp limitation: It does not take into account positions which are allowed to remain vacant because qualified candidates cannot be found. If an institution has budgeted

the funds but allows the position to remain vacant, such demand does not come to light thru the identification of new teachers as reported in the following section.

The Demand in 1953-54 and in 1954-55

Table 19 presents the basic findings of this study—the number and sex of the new teachers employed by 656 degree-granting institutions during the two years just past, and the distribution of these new teachers among the various general fields of teaching. These figures for both these years were sought so that a two-year base would be available for the comparison of new teachers with the total staff. In this way an unusual situation of a temporary nature would tend to reveal itself.

Table 20 compares the total number of full-time teachers in 1954-55 with the number of new teachers employed the same year, by sex and by general field of teaching. Within the total staff, as shown in Table 20, the general field of the social sciences claims the largest number of full-time teachers. It is followed, in order, by fine arts, English, physical sciences, education, engineering, biological sciences, physical and health education, foreign languages, business and commerce, agriculture, and mathematics.[1] But Table 20 shows a different arrangement of these fields in terms of the number of new teachers employed. Fine arts tops this list. Physical sciences, fourth in total staff, is third in number of new teachers employed; English, third in total staff, is fifth in the demand for new teachers; foreign languages, ninth in total staff, is twelfth in the demand for new teachers during 1954-55.

This comparison—the distribution of total teachers with the distribution of new teachers among the teaching fields—points up the need for a record of new teachers employed during several consecutive years. Once such a record is built up, it will then be possible to identify the causes of deviations from an established trend. Until these data accumulate, however, it will not be possible to assess the meaning of a sudden change in the relationship between the total staff in a particular teaching field and the number of new teachers employed in that field in any one year. Such a change may be

[1] The field of health sciences, altho shown in the tables, is not included in this list because its place, in terms of numbers of teachers required, is unknown; many of the reporting institutions did not include such fields as dentistry, medicine, and other professional schools in which a disproportionate number of part-time teachers may be used.

TABLE 19.—NUMBER OF NEW TEACHERS EMPLOYED, BY SEX AND BY GENERAL FIELD OF TEACHING, IN 1953-54 AND IN 1954-55, IN 656 DEGREE-GRANTING INSTITUTIONS

General field of teaching	Employed in 1953-54			Employed in 1954-55		
	Total	Men	Women	Total	Men	Women
1	2	3	4	5	6	7
Agriculture	175	159	16	199	182	17
Biological sciences	233	201	32	233	191	42
Business and commerce	201	161	40	261	195	66
Education	342	223	119	351	232	119
Engineering	321	319	2	389	384	5
English	373	275	98	380	283	97
Fine arts	443	331	112	541	402	139
Foreign languages	146	106	40	188	145	43
Geography	22	20	2	19	17	2
Health sciences	238	129	109	280	142	138
Home economics	143	13	130	135	3	132
Industrial and vocational arts	64	59	5	49	45	4
Journalism	22	19	3	23	17	6
Law	22	21	1	24	22	2
Library science	82	24	58	94	23	71
Mathematics	193	163	30	208	181	27
Philosophy	60	58	2	60	59	1
Physical and health education	252	127	125	246	125	121
Physical sciences	342	313	29	407	371	36
Psychology	117	103	14	144	128	16
Religion	71	65	6	75	68	7
Social sciences	441	393	48	456	396	60
Others	3	2	1	6	6	...
Total number of teachers	4,306	3,284	1,022	4,768	3,617	1,151
Percent, by sex	100.0%	76.3%	23.7%	100.0%	75.9%	24.1%

TABLE 20.—COMPARISON OF NUMBER OF REGULAR FULL-TIME TEACHERS IN 1954-55 WITH NUMBER OF NEW TEACHERS EMPLOYED DURING 1954-55, BY SEX AND BY GENERAL FIELDS OF TEACHING, IN 656 DEGREE-GRANTING INSTITUTIONS

General field of teaching	Total staff, 1954-55			New teachers employed in 1954-55					
				Number			Percent new teachers are of total in field, 1954-55		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
1	2	3	4	5	6	7	8	9	10
Agriculture	2,692	2,598	94	199	182	17	7.4%	7.0%	18.1%
Biological sciences	3,638	3,091	547	233	191	42	6.4	6.2	7.7
Business and commerce	3,137	2,494	643	261	195	66	8.3	7.8	10.3
Education	4,555	2,881	1,674	351	232	119	7.7	8.1	7.1
Engineering	4,216	4,195	21	389	384	5	9.2	9.2	23.8
English	5,097	3,626	1,471	380	283	97	7.5	7.8	6.6
Fine arts	6,562	4,842	1,720	541	402	139	8.2	8.3	8.1
Foreign languages	3,175	2,278	897	188	145	43	5.9	6.4	4.8
Geography	479	404	75	19	17	2	4.0	4.2	2.7
Health sciences	2,203	1,456	747	280	142	138	12.7	9.8	18.5
Home economics	1,508	55	1,453	135	3	132	9.0	5.5	9.1
Industrial and vocational arts	917	854	63	49	45	4	5.3	5.3	6.3
Journalism	375	345	30	23	17	6	6.1	4.9	20.0
Law	502	493	9	24	22	2	4.8	4.5	22.2
Library science	1,360	382	978	94	23	71	6.9	6.0	7.3
Mathematics	2,478	2,126	352	208	181	27	8.4	8.5	7.7
Philosophy	863	819	44	60	59	1	7.0	7.2	2.3
Physical and health education	3,294	2,026	1,268	246	125	121	7.5	6.2	9.5
Physical sciences	4,980	4,672	308	407	371	36	8.2	7.9	11.7
Psychology	1,527	1,320	207	144	128	16	9.4	9.7	7.7
Religion	889	823	66	75	68	7	8.4	8.3	10.6
Social sciences	6,698	5,975	723	456	396	60	6.8	6.6	8.3
Others	154	93	61	6	6	.....	3.9	6.5	...
All fields of teaching	61,299	47,848	13,451	4,768	3,617	1,151	7.8%	7.6%	8.6%

TABLE 21.—PERCENT OF MEN TEACHERS BY GENERAL FIELDS OF TEACHING: NEW TEACHERS AND TOTAL STAFF COMPARED IN 656 DEGREE-GRANTING INSTITUTIONS, 1953-54 AND 1954-55

General field of teaching	Percent of men teachers			
	Total staff 1954-55	New teachers		
		1953-54	1954-55	Both years
1	2	3	4	5
Agriculture	96.5%	90.9%	91.5%	91.2%
Biological sciences	85.0	86.3	82.0	84.1
Business and commerce	79.5	80.1	74.7	77.1
Education	63.2	65.2	66.1	65.7
Engineering	99.5	99.4	98.7	99.0
English	71.1	73.7	74.5	74.1
Fine arts	73.8	74.7	74.3	74.5
Foreign languages	71.7	72.6	77.1	75.1
Geography	84.3	90.9	89.5	90.2
Health sciences	66.1	54.2	50.7	52.3
Home economics	3.6	9.1	2.2	5.8
Industrial and vocational arts	93.1	92.2	91.8	92.0
Journalism	92.0	86.4	73.9	80.0
Law	98.2	95.5	91.7	93.5
Library science	28.1	29.3	24.5	26.7
Mathematics	85.8	84.5	87.0	85.8
Philosophy	94.9	96.7	98.3	97.5
Physical and health education	61.5	50.4	50.8	50.6
Physical sciences	93.8	91.5	91.2	91.3
Psychology	86.4	88.0	88.9	88.5
Religion	92.6	91.5	90.7	91.1
Social sciences	89.2	89.1	86.8	88.0
Others	60.4	66.7	100.0	88.9
Total	78.1%	76.3%	75.9%	76.1%

of only one year's duration, or it may be the beginning of a long-range trend.

The Sex of New Teachers, by Field

Among the new teachers employed in 1953-54 and in 1954-55 men predominate in varying degrees in every general teaching field except home economics and library science, as indicated in Table 21. Excluding such men's fields as agriculture, engineering, and the vocational arts, this table shows that some 9 of every 10 full-time teachers are men in the fields of journalism, law, philosophy, physical sciences, religion, and social sciences. About four of every five are men in biological sciences, business and commerce, geography, mathematics, and psychology.

On the average, 78.1 percent of all full-time teachers are men. But the employment of new teachers in 1953-54, with 76.3 percent being men, and in 1954-55, with 75.9 percent being men, shows a slight tendency toward the acceptance of more women.

In the fields of most widely advertised shortage—physical sciences and mathematics—the sex division of new teachers closely parallels that of the total group. Table 21 contains further details.

Preparation of New Teachers

A question of vital importance is, How well prepared are the new teachers being added to the full-time staffs of the colleges and universities? The facts shown in Table 19 would seem to indicate the answer, Not very well. Analysis of the academic training of the new full-time teachers employed in 1953-54 and in 1954-55 shows that their addition does not up-grade the total corps.

A comparison of Table 22 and Table 10 (page 138) shows these facts: Of the total full-time staff in service in 1953-54, 40.5 percent held the doctor's degree, 20.9 percent had completed the equivalent of at least one full year of preparation beyond the master's degree, 28.2 percent were at the master's degree level, and 10.4 percent were below that level; of the new full-time teachers employed during the past two years, only 30.8 percent hold the doctor's degree, 18.2 percent are one year beyond the master's degree, 32.5 percent are at the master's degree level, and 18.5 percent are below that level.

The comparison of the preparation of all full-time teachers in 1953-54 with that of the new teachers employed in 1953-54 and in 1954-55 is limited because the field-by-field breakdown of the total staff is not available. Table 22 shows this field-by-field distribution of new teachers employed during the two years according to their preparation.

Among the new teachers, more than one-half in psychology (65.1 percent) and in biological sciences (57.3 percent) hold the doctor's degree. In physical sciences it is 49.7 percent; in philosophy, 44.2 percent; in social sciences, 43.7 percent with the doctor's degree.[2] Between 3 and 4 of every 10 new teachers in these fields hold the doctor's degree: agriculture, education, foreign languages, geography, law, mathematics, and religion. Only about 1 in 4 new English teachers holds this degree, and fewer than 1 in 5 do so in business and commerce, engineering, home economics, and journalism. Only 1 in 10 new teachers in fine arts has attained this level of preparation.

At the other end of the preparation scale, new teachers without the master's degree vary from only 2.3 percent in psychology to more than one-third in agriculture, engineering, industrial and vocational arts, law, and physical and health education. In the fields of the greatest general shortage among the different types of institutions, physical sciences and mathematics, new teachers below the master's degree level equal 12.3 and 10.7 percent, respectively, of the new teachers employed in these fields.

A comparison of the preparation of men with that of women brings to light another item of information about the new teachers. At the doctor's degree level are 36.3 percent of the men but only 13.2 percent of the women. At the other extreme are 16.0 percent of the men and 26.4 percent of the women without the master's degree. Other detailed comparisons may be made from the data in Table 22.

Sources of New Teachers

Another question to be asked about new teachers is, Where do they come from? At this point it should be noted again that *teacher turnover* was not a part of the study reported in this bulletin. Many teachers, of course, shift from one teaching position to another. In doing so, they neither create nor satisfy a *demand* for a teacher; they only transfer the

[2] See footnote 1, page 145.

TABLE 22.—NUMBER OF NEW TEACHERS BY AMOUNT OF ACADEMIC TRAINING, BY GENERAL FIELDS OF TEACHING, AND BY SEX IN 656 DEGREE-GRANTING INSTITUTIONS, 1953-54 AND 1954-55

General field of teaching	Total new teachers 1953-54 and 1954-55			Percent of new teachers having:											
				Doctor's degree			Master's degree plus one year			Master's degree			Less than master's degree		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Agriculture	374	341	33	34.2%	37.0%	6.1%	9.1%	10.0%	....	23.0%	24.0%	12.1%	33.7%	29.0%	81.8%
Biological sciences	466	392	74	57.3	61.2	36.5	15.7	16.1	13.5%	19.9	17.1	35.1	7.1	5.6	14.9
Business and commerce	462	356	106	19.0	23.3	4.7	19.5	22.2	10.4	42.2	36.2	62.3	19.3	18.3	22.6
Education	693	455	238	36.7	47.3	16.4	24.5	25.9	21.9	30.3	22.0	46.2	8.5	4.8	15.5
Engineering	710	703	7	15.1	15.2	....	8.6	8.4	28.6	32.1	32.0	42.8	44.2	44.4	28.6
English	753	558	195	26.2	29.2	17.4	30.1	34.4	18.0	35.6	30.1	51.3	8.1	6.3	13.3
Fine arts	984	733	251	10.6	13.2	3.2	17.6	18.6	14.7	48.6	46.8	53.8	23.2	21.4	28.3
Foreign languages	334	251	83	34.1	35.8	28.9	29.0	30.7	24.1	28.2	25.9	34.9	8.7	7.6	12.1
Geography	41	37	4	31.7	32.4	25.0	29.3	32.4	....	36.6	35.2	50.0	2.4	....	25.0
Health sciences	518	271	247	44.8	77.8	8.5	6.6	6.3	6.9	22.4	4.8	41.7	26.2	11.1	42.9
Home economics	278	16	262	16.2	68.8	13.0	7.6	6.2	7.6	53.2	18.8	55.3	23.0	6.2	24.1
Industrial and vocational arts	113	104	9	10.6	11.5	....	9.7	9.6	11.2	38.1	37.5	44.4	41.6	41.4	44.4
Journalism	45	36	9	17.8	15.7	22.2	8.9	11.1	....	57.8	58.3	55.6	15.5	13.9	22.2
Law	46	43	3	30.4	32.6	....	10.9	11.6	....	13.0	11.6	33.3	45.7	44.2	66.7
Library science	176	47	129	1.7	4.2	0.8	12.5	27.7	7.0	55.1	44.7	58.9	30.7	23.4	33.3
Mathematics	401	344	57	31.7	35.5	8.8	21.2	22.1	15.8	36.4	33.1	56.1	10.7	9.3	19.3
Philosophy	120	117	3	44.2	44.4	33.3	30.0	29.9	33.3	18.3	18.0	33.3	7.5	7.7	....
Physical and health education	498	252	246	8.2	10.3	6.1	7.4	9.5	5.3	47.0	47.2	46.7	37.4	33.0	41.9
Physical sciences	749	684	65	49.7	51.4	30.8	14.9	15.5	9.2	23.1	22.4	30.8	12.3	10.7	29.2
Psychology	261	231	30	65.1	66.2	56.7	21.1	20.8	23.3	11.5	10.4	20.0	2.3	2.6	....
Religion	146	133	13	34.3	33.1	46.1	31.5	32.3	23.1	21.2	21.8	15.4	13.0	12.8	15.4
Social sciences	897	789	108	43.7	46.4	24.1	27.9	28.9	20.4	23.1	19.6	48.1	5.3	5.1	7.4
Others	9	8	1	11.1	12.5	....	11.1	12.5	....	....	....	....	77.8	75.0	100.0
All fields of teaching	9,074	6,901	2,173	30.8%	36.3%	13.2%	18.2%	20.0%	12.7%	32.5%	27.7%	47.7%	18.5%	16.0%	26.4%

demand from one location to another. Thus *another full-time college teaching position* is not a possible source from which a new teacher could come. Of the 656 institutions reporting on the employment of new teachers in 1953-54 and in 1954-55, 635 institutions found it possible to identify and report the sources from which these new teachers came, as indicated in Table 23.

Just over one-half (51.5 percent) of these new teachers came directly from graduate school. This percent varies only from 56.2 for Group VI to 44.5 for Group IV.[3]

The next source of supply—some educational service other than regular full-time college teaching—contributed, on the average, 22.2 percent of the new teachers. But the range among the types of institutions drawing upon this source is wide: from 17.1 percent for Group II to 42.2 percent for Group IV. This latter group (teachers colleges) probably recruits most heavily from elementary and secondary schools. In an NEA Research Division study reported a year ago [4] it was found that many teachers college authorities look with favor upon firsthand experience with pupils of elementary- and secondary-school age as a qualification for a full-time college teaching position related to the preparation of elementary- or secondary-school teachers. The fact that 4 in 10 of the new teachers in this type of institution come directly from some other kind of educational service would seem to support this earlier finding.

One in 10 of the new teachers, on the average, comes directly from a business occupation. Group II draws upon this source for 15.0 percent of its new teachers, while Group IV takes only 2.0 percent of its new teachers from business occupations.

Government service furnishes 5.0 percent of the new teachers required by Group I, but only 1.3 percent of those employed by Group VII. Returnees from the military services comprise only 2.0 percent of the new teachers.

Nature of the Unfilled Demand

Earlier in this section it was recognized that one aspect of the demand for teachers would not be revealed by the identification of new teachers: positions unfilled thru lack of acceptable candidates altho funds are provided for these positions. Among the 645 reporting institutions, 399 indicated that no teaching positions had remained vacant because acceptable candidates were not available. But 246 institutions did report one or more unfilled places in either 1953-54 or 1954-55. Table 24 shows the distribution of these institutional reports among the general fields of teaching. No fewer than 92 institutions failed to fill vacancies in physical sciences. Next came 58 in engineering, 38 in mathematics, 37 in education, and 34 in business and commerce.

While 61.9 percent of all institutions reported no unfilled positions thru lack of

[3] For a description of institutions according to Group, see Table 1, page 131.

[4] National Education Association, Research Division. "Instructional Staff Practices and Policies in Degree-Granting Institutions, 1953-54." *Research Bulletin* 32: 168; December 1954.

TABLE 23.—SOURCES OF NEW FULL-TIME TEACHERS APPOINTED IN 1953-54 AND IN 1954-55 IN 635 DEGREE-GRANTING INSTITUTIONS

Sources of new teachers	All institutions	Type of institution						
		Public universities and land-grant colleges	Nonpublic universities	State colleges	Teachers colleges	Nonpublic colleges (by enrolment)		
						1,000 and over	500-999	Under 500
1	2	3	4	5	6	7	8	9
Graduate school	51.5%	53.3%	52.0%	44.9%	44.5%	50.9%	56.2%	54.3%
Some educational service other than regular full-time college teaching	22.2	18.7	17.1	29.0	42.2	18.6	21.0	21.6
Business occupations	10.4	11.7	15.0	11.3	2.0	13.0	6.0	7.2
Government service	3.5	5.0	3.8	4.0	3.6	2.0	1.8	1.3
Military service	2.0	2.5	1.5	1.7	2.4	1.8	2.0	1.2
Other	10.4	8.8	10.6	9.1	5.3	13.7	13.0	14.4
All sources	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number of institutions reporting	635	72	52	98	89	50	106	168

TABLE 24.—NUMBER AND PERCENT OF INSTITUTIONS REPORTING TEACHING POSITIONS UNFILLED IN 1953-54 OR 1954-55 BECAUSE OF LACK OF ACCEPTABLE CANDIDATES IN EACH GENERAL FIELD OF TEACHING, BY TYPE OF INSTITUTION

General field of teaching	All institutions		Public universities and land-grant colleges		Nonpublic universities		State colleges		Teachers colleges		Nonpublic colleges (by enrolment)					
											1,000 and over		500–999		Under 500	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Agriculture	6	0.9%	2	2.8%	...	...	3	3.0%	1	1.1%	...	...	...	...	...	...
Biological sciences	9	1.4	1	1.4	1	2.0%	2	2.0	2	2.2	1	2.0%	...	...	2	1.2%
Business and commerce	34	5.3	11	15.3	4	7.8	6	5.9	...	...	6	12.0	5	4.5%	2	1.2
Education	37	5.7	5	6.9	5	9.8	6	5.9	11	12.0	2	4.0	1	0.9	7	4.2
Engineering	58	9.0	25	34.7	11	21.6	13	12.9	1	1.1	5	10.0	2	1.8	1	0.6
English	10	1.6	1	1.4	1	2.0	4	4.0	1	1.1	...	...	1	0.9	2	1.2
Fine arts	9	1.4	1	1.4	1	2.0	1	1.0	...	...	2	4.0	3	2.7	1	0.6
Foreign languages	4	0.6	...	...	...	...	2	2.0	1	1.1	...	...	...	...	1	0.6
Geography	1	0.2	1	1.4	...	...	...	...	...	...	...	...	...	...	...	...
Health sciences	12	1.9	7	9.7	1	2.0	2	2.0	...	...	1	2.0	1	0.9	...	...
Home economics	14	2.2	5	6.9	...	...	4	4.0	2	2.2	1	2.0	...	...	2	1.2
Industrial and vocational arts	9	1.4	2	2.8	3	5.9	2	2.0	1	1.1	1	2.0	...	...	...	...
Journalism	4	0.6	1	1.4	...	...	1	1.0	...	...	...	...	2	1.8	...	...
Law	3	0.5	2	2.8	...	...	1	1.0	...	...	...	...	...	...	...	...
Library science	4	0.6	...	...	1	2.0	3	3.0	...	...	...	...	...	...	...	...
Mathematics	38	5.9	14	19.4	7	13.7	9	8.9	1	1.1	2	4.0	4	3.6	1	0.6
Philosophy	6	0.9	2	2.8	...	...	...	...	1	1.1	...	...	2	1.8	1	0.6
Physical and health education	14	2.2	1	1.4	1	2.0	2	2.0	2	2.2	...	...	3	2.7	5	3.0
Physical sciences	92	14.3	23	31.9	14	27.5	12	11.9	10	10.9	5	10.0	16	14.4	12	7.1
Psychology	13	2.0	4	5.6	...	...	2	2.0	2	2.2	2	4.0	3	2.7	...	...
Religion	2	0.3	...	...	...	...	...	...	...	...	...	...	1	0.9	1	0.6
Social sciences	14	2.2	5	6.9	2	3.9	3	3.0	2	2.2	...	...	2	1.8	...	...
No unfilled positions	399	61.9	22	30.6	25	49.0	47	46.5	65	70.7	31	62.0	75	67.6	134	79.8
Number of institutions reporting	645	...	72	...	51	...	101	...	92	...	50	...	111	...	168	...

TABLE 25.—NUMBER AND PERCENT OF INSTITUTIONS REPORTING SHORTAGE OF QUALIFIED TEACHERS OBSERVED DURING 1953-54 OR 1954-55 IN EACH GENERAL FIELD OF TEACHING, BY TYPE OF INSTITUTION

General field of teaching	All institutions		Number and percent of institutions reporting teaching field													
			Public universities and land-grant colleges		Nonpublic universities		State colleges		Teachers colleges		Nonpublic colleges (by enrolment)					
											1,000 and over		500-999		Under 500	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Agriculture	14	2.2%	5	6.8%	...	...	7	6.9%	1	1.1%	...	...	...	...	1	0.6%
Biological sciences	35	5.4	7	9.5	2	3.8%	5	5.0	5	5.6	3	6.0%	7	6.4%	6	3.6
Business and commerce	102	15.8	17	23.0	10	19.2	20	19.8	5	5.6	11	22.0	18	16.5	21	12.5
Education	109	16.9	11	14.9	5	9.6	18	17.8	41	45.6	1	2.0	9	8.3	24	14.3
Engineering	97	15.1	42	56.8	19	36.5	20	19.8	1	1.1	7	14.0	6	5.5	2	1.2
English	33	5.1	3	4.1	...	...	6	5.9	6	6.7	1	2.0	6	5.5	11	6.5
Fine arts	39	6.1	3	4.1	3	5.8	7	6.9	5	5.6	3	6.0	9	8.3	9	5.4
Foreign languages	21	3.3	...	...	4	7.7	1	1.0	1	1.1	1	2.0	5	4.6	9	5.4
Health sciences	30	4.7	15	20.3	4	7.7	3	3.0	1	1.1	3	6.0	3	2.8	1	0.6
Home economics	86	13.4	14	18.9	3	5.8	23	22.8	11	12.2	3	6.0	12	11.0	20	11.9
Industrial and vocational arts	20	3.1	7	9.5	1	1.9	5	5.0	5	5.6	1	2.0	...	...	1	0.6
Journalism	3	0.5	2	2.7	...	...	...	...	...	...	...	...	1	0.9	...	...
Law	2	0.3	2	2.7	...	...	...	...	...	...	...	...	...	...	...	...
Library science	16	2.5	1	1.4	...	...	4	4.0	7	7.8	...	...	2	1.8	2	1.2
Mathematics	187	29.0	34	45.9	19	36.5	39	38.6	16	17.8	16	32.0	28	25.7	35	20.8
Philosophy	3	0.5	...	...	1	1.9	...	...	1	1.1	...	...	1	0.9	...	...
Physical and health education	50	7.8	2	2.7	...	...	13	12.9	10	11.1	1	2.0	11	10.1	13	7.7
Physical sciences	446	69.3	58	78.4	35	67.3	80	79.2	51	56.7	38	76.0	78	71.6	106	63.1
Psychology	44	6.8	9	12.2	3	5.8	1	1.0	6	6.7	5	10.0	11	10.1	9	5.4
Religion	2	0.3	...	...	...	...	...	...	...	...	...	...	1	0.9	1	0.6
Social sciences	64	9.9	10	13.5	4	7.7	4	4.0	6	6.7	7	14.0	21	19.3	12	7.1
No shortage in any field	26	4.0	...	...	1	1.9	1	1.0	6	6.7	1	2.0	6	5.5	11	6.5
Number of institutions reporting	644	...	74	...	52	...	101	...	90	...	50	...	109	...	168	...

TABLE 26.—NUMBER AND PERCENT OF INSTITUTIONS REPORTING GENERAL FIELDS OF TEACHING IN WHICH THE EARLIEST NEED FOR ADDITIONAL TEACHERS IS ANTICIPATED, BY TYPE OF INSTITUTION, 1954-55

General field of teaching	All institutions		Public universities and land-grant colleges		Nonpublic universities		State colleges		Teachers colleges		Nonpublic colleges (by enrolment)					
											1,000 and over		500–999		Under 500	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Agriculture	8	1.3%	3	4.3%	...	...	4	4.1%	...	...	...	...	1	1.0%	...	...
Biological sciences	76	12.2	9	12.9	3	5.9%	17	17.3	5	5.7%	5	11.4%	16	15.2	21	12.7%
Business and commerce	143	23.0	16	22.9	13	25.5	39	39.8	9	10.2	11	25.0	24	22.9	31	18.8
Education	162	26.1	20	28.6	5	9.8	31	31.6	39	44.3	6	13.6	25	23.8	36	21.8
Engineering	70	11.3	27	38.6	13	25.5	15	15.3	...	...	7	15.9	5	4.8	3	1.8
English	302	48.6	32	45.7	19	37.3	50	51.0	46	52.3	22	50.0	51	48.6	82	49.7
Fine arts	91	14.7	8	11.4	5	9.8	27	27.6	21	23.9	4	9.1	9	8.6	17	10.3
Foreign languages	63	10.1	5	7.1	9	17.6	6	6.1	1	1.1	8	18.2	14	13.3	20	12.1
Geography	8	1.3	2	2.9	...	...	3	3.1	2	2.3	...	...	1	1.0	...	...
Health sciences	9	1.4	2	2.9	2	3.9	2	2.0	1	1.1	1	2.3	...	...	1	0.6
Home economics	26	4.2	5	7.1	2	3.9	1	1.0	3	3.4	3	6.8	6	5.7	6	3.6
Industrial and vocational arts	23	3.7	4	5.7	2	3.9	3	3.1	6	6.8	1	2.3	2	1.9	5	3.0
Journalism	6	1.0	...	...	1	2.0	...	...	...	...	1	2.3	2	1.9	2	1.2
Law	1	0.2	1	1.4	...	...	...	...	...	...	...	...	...	...	...	...
Library science	4	0.6	1	1.4	...	...	1	1.0	1	1.1	...	...	1	1.0	...	...
Mathematics	185	29.8	35	50.0	22	43.1	32	32.7	20	22.7	12	27.3	28	26.7	36	21.8
Philosophy	22	3.5	1	1.4	4	7.8	...	...	...	...	...	...	8	7.6	9	5.5
Physical and health education	46	7.4	3	4.3	...	...	12	12.2	15	17.0	...	...	6	5.7	10	6.1
Physical sciences	298	48.0	36	51.4	27	52.9	55	56.1	47	53.4	17	38.6	43	41.0	73	44.2
Psychology	53	8.5	6	8.6	3	5.9	6	6.1	5	5.7	5	11.4	14	13.3	14	8.5
Religion	26	4.2	...	...	1	2.0	...	...	...	...	4	9.1	9	8.6	12	7.3
Social sciences	257	41.4	23	32.9	21	41.2	29	29.6	40	45.5	21	47.7	56	53.3	67	40.6
All fields proportionately	24	3.9	5	7.1	3	5.9	9	9.2	3	3.4	1	2.3	2	1.9	1	0.6
All junior-college subjects	1	0.2	...	...	...	...	1	1.0	...	...	...	...	...	...	...	...
All liberal arts subjects	2	0.3	1	1.4	...	...	1	1.0	...	...	...	...	...	...	...	...
Basic freshman subjects	2	0.3	2	2.9	...	...	...	...	...	...	...	...	...	...	...	...
Many fields	3	0.5	3	4.3	...	...	...	...	...	...	...	...	...	...	...	...
Number of institutions reporting	621	...	70	...	51	...	98	...	88	...	44	...	105	...	165	...

acceptable candidates, only 30.6 percent of Group I so reported. Of Group III, 46.5 percent reported no unfilled teaching positions; of Group II, 49.0 percent; of the other groups, 62.0 to 79.8 percent.

In addition to the foregoing reports of unfilled full-time teaching positions, 70 administrative posts were reported unfilled thru lack of available qualified candidates. These were most frequently reported: deanships, 8; department headships, 2; directors of various units, such as public relations, research, placement, admissions, and special service fields, 28; psychologists, 2; such administrative posts as registrar, purchasing agent, business manager, and librarian, 20.

Estimates of Shortages

The opinions of reporting officials were sought by asking this question: During 1953-54 and 1954-55, in what fields have you observed the greatest shortage of qualified teachers? Most of the reports mentioned more than one field. Table 25, therefore, indicates the number of times a teaching field was mentioned, and the percent of all reporting institutions which mentioned each field.

This report confirms the widespread belief that the greatest shortage is in the physical sciences; 446, or 69.3 percent, of the reporting institutions emphasized this fact. Next in frequency were 187 institutions (29.0 percent) reporting an observed shortage of qualified mathematics teachers. Then followed education, reported by 16.9 percent of the institutions, and business and commerce, reported by 15.8 percent. Every teaching field was included, and only 26 (4.0 percent) of the institutions indicated that no shortage had been observed during the past two years.

In each of the groups of institutions physical sciences stood out as the field of greatest shortage. In Group I, where engineering is a major offering, it was second, and in Group IV education was second, but in the other types of institutions mathematics was the second field of concern.

Anticipated Future Needs

As a further expression of opinion, the reporting institutions were asked to indicate the teaching fields in which they foresee the earliest need for expansion of teaching staffs. This look at future needs differs somewhat, in point of emphasis, from the immediately preceding report of observed shortages during the past two years.

Table 26 shows English and physical sciences in a virtual tie (48.6 and 48.0 percent of the institutions, respectively) as the fields in which greatest expansion is anticipated, with social sciences following closely. Mathematics is fourth in frequency of mention. Then follows education, business and commerce, and fine arts. Early expansion in the other fields was not stressed by any considerable number of the reporting institutions.

The various types of institutions differ somewhat in their views of future expansion as might be expected because of their differing curriculums.

Conclusion

Little is known about the nature or the amount of the demand for teachers by the colleges and universities of the nation. Many facts are lacking which, if available, should serve in at least two important ways. One use of these facts would be by the administrative officer as he charts the future course of the institution for which he assumes leadership. A second use of facts not now available would be by the counselor of students who may have some interest in preparing for teaching in college. And a corollary, of course, would be the use by the student himself, particularly of data which would indicate to him the *nature* and the *probable number* of future opportunities in the *various fields* of teaching.

The study reported in this bulletin was a pioneer effort to undergird with factual data some of the many estimates of future needs now being made. The focus was upon the demand for full-time teachers during the past two years. Within the bounds of a sharp definition of a *new* teacher, those employed during 1953-54 and 1954-55 have been identified, some of their characteristics noted, and the sources from which they came explored. Also, a subjective evaluation of certain recently past, present, and future conditions has been sought.

The participation of a substantial majority of degree-granting institutions in this investigation would seem to suggest that facts presented in this section concerning the demands for teachers are a representative picture of the nation as a whole.

IV. The Supply of Teachers

More vexing, if possible, than the question, How many teachers will we need? are these questions: What are the sources of supply, and how adequate are they likely to be, year by year, for the next decade?

In the case of the supply of teachers for the elementary and secondary schools, substantial answers to these questions are at hand. There it is possible to identify a "qualified candidate" in accordance with legally imposed certificate requirements. In actual practice it is true, of course, that (a) these requirements vary from state to state, and (b) substandard (emergency) certificates are issued in the number about equal to the difference between the number of available qualified candidates and the number of classrooms to be staffed. Nevertheless, an annual national survey reveals in early March the total number expected to come from the colleges at the end of the current academic year, and thus become eligible to consider the teaching positions (starting the following September) which elementary- and high-school employing authorities may be disposed to offer these potential college graduates. Such regularly assembled information provides employing officials early in the placement season with an overview of the oncoming new *supply*.[1]

But no such clear-cut definition of a *qualified* candidate for college teaching is at hand. Every institution enjoys wide latitude in this matter.[2] Eligibility is determined largely by the local campus authorities. One college may consider as quite acceptable the qualifications of a candidate who would be wholly unacceptable on another campus. Again, desired (and acceptable) qualifications vary widely from field to field in the same institution. In certain fields the doctor's degree may be a "must," while in other fields the master's degree represents a quite acceptable level of preparation.

Table 10, page 138, shows the enormous range in the levels of preparation of the total full-time teaching staff in service in 1953-54. Table 22, page 148, shows a similar spread in the academic attainments of new teachers employed during 1953-54 and 1954-55. The range is wide from one type of institution to another, and from one field of teaching to another, thus showing clearly the lack of any uniform standards. And in the absence of generally accepted standards—required qualifications—the task of measuring the available *supply* would seem to be an impossible one.

Table 23, page 149, shows that just over one-half (51.5 percent) of the new full-time teachers employed during 1953-54 and 1954-55 came directly from graduate schools. It must not be assumed, however, that each of these new teachers was the recipient of an advanced degree because he came from graduate school to a full-time college teaching position; he may have been anywhere along the line, from a brief beginning of graduate study to the full completion of doctor's degree requirements.

Accurate and complete records are available, of course, concerning the number of earned degrees conferred each year, by each degree-granting institution and by field of study.[3] If the number of degrees conferred were a concise or even a general indication of the number of prospective college teachers available (at each acceptable level of preparation), the employing officials could join in a mighty sigh of relief; they would at least know the quantitative aspects of this, the first source of supply. Unfortunately, this is not the case; no meaningful index is available to indicate a relation between the total number of degree recipients and the number aspiring to enter any particular occupation.

It is widely assumed, of course, that some 60 percent or more of all doctor's degree recipients enter teaching as a profession. But

[1] The ninth annual National Teacher Supply and Demand Report will be released in March 1956. It will include a report from every college and university in the nation in which students may meet the requirements for the elementary- or high-school teaching certificate. Members of the Class of 1956 will be identified according to the particular teaching assignments they will be qualified to accept. This is not to say, of course, that all members of the Class of 1956 who are eligible to teaching certificates will actually seek teaching positions. They probably will distribute themselves among the occupational fields in the manner of their immediate predecessors, the Class of 1955, because no important change has occurred during the past year in the over-all occupational scene. This would suggest that about two of every three will become teachers in September 1956.

[2] With only modest limitations imposed upon a few of the publicly controlled institutions.

[3] The annual U. S. Office of Education report of earned degrees conferred by higher educational institutions.

this generalization is not known to be accurate today, and even if it were, it would be of little or no help to the employing officer unless he knew it applied to the *specific field* for which he needed a teacher. For example, of the 968 men and 45 women who received the doctor's degree in chemistry, or of the 479 men and 6 women who received this degree in physics in 1954, how many were interested in and actually sought college teaching positions?[4] In these physical science fields the percent of recent graduates interested in teaching today is probably only a small fraction of their counterparts in certain earlier years who were actively interested. And the recently changed conditions responsible for this shift in occupational ambitions of one group of doctor's degree recipients may have no particular force among the graduates in another field.

The Record of Degrees Conferred

Despite all these limitations, the year-by-year record of degrees conferred must be examined for possible clues to the future potential supply of college teachers. Certainly these records indicate the outside limits of possible new supply altho they do not take into account the possible changes in the occupational interests of graduates of earlier years. And to identify the possible clues it is desirable to review the records at all three levels of degree conferment—bachelor's, master's, and doctor's.

Total Bachelor's Degrees

Table 10, page 138, shows that 10.4 percent of all full-time teachers in service in 1953-54 had not yet earned the master's degree. Table 22, page 148, shows that 18.5 percent of the newly employed teachers are similarly of limited preparation. While it seems fair to assume that most persons in these groups were on the way to the master's degree, the record of total bachelor's degrees conferred in any one year would seem to have some relation to the number of prospective candidates for these positions. Far more significant, however, is the obvious fact that the total number of bachelor's degrees conferred in any one year has a direct relation to the number of persons entering upon master's degree—and later doctor's degree—programs in the early following years. Thus the figures shown in Table 27 require examination.

Prior to our entrance into World War II—in 1940—bachelor's degree recipients reached a total of 186,500. This number fell to 125,875 in 1944, then steadily climbed to 433,734 in 1950, and then just as steadily declined to

[4] And a considerable number of college employing officials would want to raise this further question: How many of this total number are adequately prepared to teach physics or chemistry to undergraduate students?

TABLE 27.—NUMBER OF EARNED BACHELOR'S DEGREES CONFERRED BY INSTITUTIONS OF HIGHER EDUCATION, BY SEX, 1938 TO 1954

Year	Bachelor's degrees conferred				
	Total	Men		Women	
		Number	Percent	Number	Percent
1	2	3	4	5	6
1954	292,880	187,500	64.0%	105,380	36.0%
1953	304,857	200,820	65.9	104,037	34.1
1952	331,924	227,029	68.4	104,895	31.6
1951	384,352	279,343	72.7	105,009	27.3
1950	433,734	329,819	76.0	103,915	24.0
1949	366,634	264,168	72.1	102,466	27.9
1948	272,144	175,987	64.7	96,157	35.3
1946	136,174	58,664	43.1	77,510	56.9
1944	125,875	55,876	44.4	69,999	55.6
1942	185,346	103,889	56.1	81,457	43.9
1940	186,500	109,546	58.7	76,954	41.3
1938	164,943	97,678	59.2	67,265	40.8

Sources: U. S. Department of Health, Education, and Welfare, Office of Education. *Earned Degrees Conferred by Higher Educational Institutions.* Circulars No. 247, 262, 282, 333, 360, 380, and 418. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1948, 1949, 1950, 1952, and 1955.

U. S. Office of Education, Federal Security Agency. "Statistics of Higher Education." *Biennial Survey of Education in the United States,* 1936-38 and 1948-50. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1941 and 1952.

292,880 in 1954. The 1955 figure, not yet available, will probably be slightly lower, but increased undergraduate enrolments during the past two years point to a steady, but gradual, increase beginning in 1956.

The changes in these gross totals, however, are probably no more meaningful than are the more dramatic changes in the proportion of men within the total, year by year, because 78.2 percent of all college teachers are men. Starting with 109,546 men (58.7 percent of the total) in 1940, this number dropped to 55,876 (44.4 percent) in 1944, rose to 329,819 (76.0 percent) in 1950, then fell to 187,500 (64.0 percent) in 1954. The total number of women receiving bachelor's degrees, on the other hand, sustained only a little interruption in its steady climb from 76,954 in 1940 to 96,157 in 1948. And since that time the number of women bachelor's degree graduates has

TABLE 28.—NUMBER OF EARNED MASTER'S DEGREES CONFERRED BY INSTITUTIONS OF HIGHER EDUCATION, BY SEX, 1938 TO 1954

Year	Master's degrees conferred				
	Total	Men		Women	
		Number	Percent	Number	Percent
1	2	3	4	5	6
1954	56,823	38,147	67.1%	18,676	32.9%
1953	61,023	40,989	67.2	20,034	32.8
1952	63,587	43,591	68.6	19,996	31.4
1951	65,132	46,231	71.0	18,901	29.0
1950	58,219	41,237	70.8	16,982	29.2
1949	50,763	35,224	69.4	15,539	30.6
1948	42,417	28,907	68.1	13,510	31.9
1946	19,209	9,484	49.4	9,725	50.6
1944	13,414	5,711	42.6	7,703	57.4
1942	24,648	14,179	57.5	10,469	42.5
1940	26,731	16,508	61.8	10,223	38.2
1938	21,628	13,400	62.0	8,228	38.0

Sources: U. S. Department of Health, Education, and Welfare, Office of Education. *Earned Degrees Conferred by Higher Educational Institutions.* Circulars No. 247, 262, 282, 333, 360, 380, and 418. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1948, 1949, 1950, 1952, and 1955.

U. S. Office of Education, Federal Security Agency. "Statistics of Higher Education." *Biennial Survey of Education in the United States,* 1936-38 and 1948-50. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1941 and 1952.

TABLE 29.—NUMBER OF EARNED DOCTOR'S DEGREES CONFERRED BY INSTITUTIONS OF HIGHER EDUCATION, BY SEX, 1938 TO 1954

Year	Doctor's degrees conferred				
	Total	Men		Women	
		Number	Percent	Number	Percent
1	2	3	4	5	6
1954	8,996	8,181	90.9%	815	9.1%
1953	8,309	7,517	90.5	792	9.5
1952	7,683	6,969	90.7	714	9.3
1951	7,338	6,664	90.8	674	9.2
1950	6,633	5,990	90.3	643	9.7
1949	5,050	4,528	89.7	522	10.3
1948	4,188	3,687	88.0	501	12.0
1946	1,966	1,580	80.4	386	19.6
1944	2,305	1,880	81.6	425	18.4
1942	3,497	3,036	86.8	461	13.2
1940	3,290	2,861	87.0	429	13.0
1938	2,932	2,502	85.3	430	14.7

Sources: U. S. Department of Health, Education, and Welfare, Office of Education. *Earned Degrees Conferred by Higher Educational Institutions.* Circulars No. 247, 262, 282, 333, 360, 380, and 418. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1948, 1949, 1950, 1952, and 1955.

U. S. Office of Education, Federal Security Agency. "Statistics of Higher Education." *Biennial Survey of Education in the United States,* 1936-38 and 1948-50. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1941 and 1952.

remained within the extremely narrow range of 102,000 to 105,000, while the number of men in this group has ascended to 329,819 and then plummeted to 187,500.

The impact of these changes, both in gross totals and in percent of men, upon the future supply of college teachers is yet to be assessed. Without doubt these changes will have some effect, both upon the total number of candidates for master's and doctor's degrees, and the distribution of the annual totals among the teaching fields.

Total Master's Degrees

Table 28 contains much meaningful information concerning the flow of master's degree recipients, year by year. The total in 1940 was 26,731. The low of 13,414 was reached in 1944, the same year as the low total of bachelor's degree conferments. The climb was steady to the high of 65,132 in 1951, since which date the decline has been steady to a total of 56,823 in 1954. The variation in the percent of men in these annual classes is shown in Table 28. It seems fair to assume that this variation was dictated by the violent fluctuation in the proportion of men in the bachelor's degree classes, as shown in Table 27.

Total Doctor's Degrees

Table 29 presents the record of doctor's degree recipients. The sharp dip during the war period coincides with the dip at all levels of higher education activities at that time. In 1940 this group totaled 3290. In 1942 the number of doctor's degree recipients was up 6.3 percent from 1940, despite a fall of 7.8 percent at the master's and 0.6 percent at the bachelor's degree level.

The wartime low of doctor's degree graduates was in 1946 whereas the low was reached two years earlier in both the master's and bachelor's degree classes. It must be noted, however, that the number of doctor's degree conferments has climbed steadily—without interruption—from the 1946 low to its high in 1954 whereas the master's degree total turned down in 1952, and continued its decrease thru 1953 and 1954. Also, the bachelor's degree total started to fall back in 1951 and now has a record of four consecutive years

TABLE 30.—NUMBER AND PERCENT OF EARNED MASTER'S AND DOCTOR'S DEGREES CONFERRED IN HIGHER EDUCATIONAL INSTITUTIONS, BY FIELD OF STUDY, 1953-54

General field of study	Master's degrees		Doctor's degrees	
	Number	Percent	Number	Percent
1	2	3	4	5
Agriculture	1,302	2.3%	515	5.7%
Biological sciences	1,610	2.8	1,077	12.0
Business and commerce	3,114	5.5	118	1.3
Education	26,075	45.9	1,388	15.4
Engineering	4,204	7.4	594	6.6
English	1,674	3.0	356	3.9
Fine arts	3,027	5.3	249	2.8
Foreign languages	820	1.5	230	2.6
Geography	177	0.3	51	0.6
Health sciences	1,552	2.7	202	2.2
Home economics	590	1.0	25	0.3
Industrial and vocational arts	444	0.8	14	0.2
Journalism	242	0.4	6	0.1
Law	341	0.6	31	0.3
Library science	127	0.2	7	0.1
Mathematics	706	1.3	227	2.5
Philosophy	251	0.5	103	1.1
Physical and health education	1,266	2.2	96	1.1
Physical sciences	2,374	4.2	1,686	18.7
Psychology	1,254	2.2	619	6.9
Religion	1,310	2.3	226	2.5
Social science	4,068	7.1	1,077	12.0
Miscellaneous	295	0.5	99	1.1
All fields of teaching	56,823	100.0%	8,996	100.0%

Source: U. S. Department of Health, Education, and Welfare, Office of Education. *Earned Degrees Conferred by Higher Educational Institutions, 1953-54.* Circular No. 418. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1955. Table 2, p. 4-5.

of decline. The logical question, then, is two-fold: What is the lag between bachelor's and master's degrees, on the one hand, and doctor's degrees, on the other; how much is the influence of total degree conferments at one level upon the subsequent total at the next level? In other words, what is the relation between total bachelor's and total master's? between total bachelor's and total doctor's? between total master's and total doctor's degrees conferred? And how many years later is this influence most likely to be felt?

These are important questions in any attempt to weigh the impact upon future annual totals of degree candidates of the recent three-year drop of 12.8 percent in master's degree and the four-year drop of 32.5 percent in bachelor's degree recipients.

Of greater significance than total numbers —to college and university employing officials —is the *distribution* of degree candidates among the teaching fields.[5]

And of overriding significance is the *distribution of degree recipients among the occupational opportunities open to them at the time of graduation*. Along with an indication of the probable number of doctor's degree recipients each year for the next decade, college officials will want to know something about the *competition* for graduates *by field of study*.

The 1954 Class, by Field of Study

At this point it is appropriate to look at the distribution of the 1954 master's and doctor's degree classes, according to the fields of teaching for which they are prepared. The distribution is shown in Table 30.

Among the master's degree group, almost one-half (45.9 percent) are concentrated in education; no other field claims more than 7.4 percent of the total. But the distribution is quite different at the doctor's degree level. Education is second, with no more than 15.4 percent, while physical sciences claims almost one in five (18.7 percent) of all doctoral candidates. Social sciences and biological sciences together account for almost one in four, w 12.0 percent each. The drop is then abrupt psychology, with 6.9 percent, and engineeri with 6.6. percent.[6]

The comparison of this distribution of most recent class of graduates with the d tribution of full-time teaching staffs wou hardly support the theory that the latter h any influence upon the former. In other word candidates for advanced degrees seem to choo their fields of concentration without regard the prospective opportunities to teach a pa ticular subject at the college level. (Or, shou it be said, without knowledge of this latt circumstance?)

Estimate of Oversupply

Opinions of reporting officials were soug by asking these questions: During 1953-54 an 1954-55, have you observed an oversupply qualified candidates in any teaching field? I so, in what fields?

Just over one-third (35.7 percent) of th respondents indicated that no oversupply ha been observed in any field. But as many a 45.5 percent observed more than an adequat supply in social sciences; almost 3 in 10 (28 percent) observed this situation in English and about 1 in 8 institutions mentioned fin arts and foreign languages.

A comfortable supply of qualified Englis candidates was observed by as many as 44.0 percent of the large nonpublic colleges (Group V)[7] but by only 23.7 percent of the smal colleges (Group VII). Social sciences candi dates seemed to be plentiful to 54.2 percent of the reporting state colleges (Group III) but to only 30.9 percent of Group I. In fine arts the range was from 18.4 percent in Group V to 7.8 percent in Group II. In foreign languages the range was from 19.6 percent in Group II to 3.4 percent in Group IV. Further details are shown in Table 31.

The Outlook in General Education

The major objective of the study reported in this bulletin was to assemble factual data. It

[5] A timely illustration of this point is found in the five-year change in the makeup of successive bachelor's degree classes of qualified candidates for the teaching of the various high-school subjects. As a whole, this group decreased 40.8 percent from 1950 to 1955, but the *range* in this decline was from 12.1 percent in potential teachers of art to 57.0 percent in potential teachers of science.

[6] It is interesting to note that engineering and English vary only a little in the percent of the total each of these fields claims at the master's and at the doctor's degree levels. In contrast, education falls from 45.9 to 15.4 percent; biological sciences jumps from 2.8 to 12.0 percent; physical sciences from 4.2 to 18.7 percent; mathematics from 1.3 to 2.5 percent.

[7] For description of institutions according to group, see Table 1, page 131.

TABLE 31.—NUMBER AND PERCENT OF INSTITUTIONS IN WHICH AN OVERSUPPLY OF QUALIFIED TEACHERS WAS OBSERVED DURING 1953-54 OR 1954-55, IN EACH FIELD OF TEACHING, BY TYPE OF INSTITUTION

General field of teaching	All institutions		Number and percent of institutions reporting teaching field													
			Public universities and land-grant colleges		Nonpublic universities		State colleges		Teachers colleges		Nonpublic colleges (by enrolment)					
											1,000 and over		500–999		Under 500	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Agriculture	1	0.2%	...	...	...	...	1	1.0%	...	...	...	...	...	...	...	...
Business and commerce	2	0.3	...	...	...	...	...	...	...	...	...	...	1	0.9%	1	0.6%
Biological sciences	6	1.0	...	...	1	2.0%	2	2.1	...	...	...	...	1	0.9	2	1.3
Education	43	7.0	3	4.4%	2	3.9	15	15.6	8	9.2%	2	4.1%	4	3.8	9	5.8
English	177	28.9	17	25.0	18	35.3	24	25.0	23	26.4	22	44.9	36	34.0	37	23.7
Fine arts	78	12.7	11	16.2	4	7.8	9	9.4	9	10.3	9	18.4	14	13.2	22	14.1
Foreign languages	75	12.2	10	14.7	10	19.6	9	9.4	3	3.4	6	12.2	16	15.1	21	13.5
Geography	2	0.3	...	...	...	...	2	2.1	...	...	...	...	...	...	...	...
Home economics	1	0.2	...	...	...	...	1	1.0	...	...	...	...	...	...	...	...
Journalism	1	0.2	...	...	1	2.0	...	...	...	...	...	...	...	...	...	...
Mathematics	1	0.2	...	...	...	...	1	1.0	...	...	...	...	...	...	...	...
Philosophy	18	2.9	1	1.5	...	...	...	...	...	...	2	4.1	6	5.7	9	5.8
Psychology	7	1.1	...	...	1	2.0	3	3.1	3	3.4	...	...	...	...	...	...
Physical and health education	19	3.1	...	...	...	...	5	5.2	9	10.3	...	...	2	1.9	3	1.9
Physical sciences	4	0.7	1	1.5	...	...	...	...	...	...	1	2.0	1	0.9	1	0.6
Religion	12	2.0	...	...	1	2.0	...	...	...	...	...	...	7	6.6	4	2.6
Social sciences	279	45.5	21	30.9	22	43.1	52	54.2	41	47.1	26	53.1	53	50.0	64	41.0
Miscellaneous	1	0.2	...	...	...	...	...	...	...	...	...	...	1	0.9	...	...
No oversupply in any field	219	35.7	37	54.4	19	37.3	30	31.3	33	37.9	15	30.6	28	26.4	57	36.5
Number of institutions reporting	613	...	68	...	51	...	96	...	87	...	49	...	106	...	156	...

TABLE 32.—PRESENT AND FUTURE OUTLOOK FOR TEACHERS IN GENERAL EDUCATION PROGRAMS IN 646 DEGREE-GRANTING INSTITUTIONS, 1954-55

Item	All institutions		Type of institution													
			Public universities and land-grant colleges		Nonpublic universities		State colleges		Teachers colleges		Nonpublic colleges (by enrolment)					
											1,000 and over		500-999		Under 500	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Have you, during the past five years, sought a candidate for the teaching of "general education" courses?																
Yes	179	27.7%	16	22.5%	9	17.0%	38	37.3%	44	48.4%	9	18.8%	30	27.0%	33	19.4%
No	467	72.3	55	77.5	44	83.0	64	62.7	47	51.6	39	81.2	81	73.0	137	80.6
Total	646	100.0%	71	100.0%	53	100.0%	102	100.0%	91	100.0%	48	100.0%	111	100.0%	170	100.0%
If so, did you find satisfactory candidates available?																
Yes	105	59.6%	11	68.8%	5	55.6%	19	50.0%	24	55.8%	5	55.6%	20	66.7%	22	66.7%
No	72	40.4	5	31.2	4	44.4	19	50.0	19	44.2	4	44.4	10	33.3	11	33.3
Total	178	100.0%	16	100.0%	9	100.0%	38	100.0%	43	100.0%	9	100.0%	30	100.0%	33	100.0%
Do you anticipate the addition of one or more teaching staff members to be assigned to your "general education" program?																
Yes	205	33.4%	16	23.9%	10	20.8%	38	38.8%	55	63.2%	12	25.0%	33	32.0%	42	25.5%
No	410	66.6	51	76.1	38	79.2	60	61.2	32	36.8	36	75.0	70	68.0	123	74.5
Total	616	100.0%	67	100.0%	48	100.0%	98	100.0%	87	100.0%	48	100.0%	103	100.0%	165	100.0%
Do you feel that the "general education" movement in undergraduate colleges justifies an organized effort by graduate schools to provide doctoral programs of broader than the traditional pattern?																
Yes	370	69.3%	32	60.4%	23	57.5%	64	74.4%	61	75.3%	23	57.5%	71	76.3%	96	68.1%
No	164	30.7	21	39.6	17	42.5	22	25.6	20	24.7	17	42.5	22	23.7	45	31.9
Total	534	100.0%	53	100.0%	40	100.0%	86	100.0%	81	100.0%	40	100.0%	93	100.0%	141	100.0%

also seemed appropriate, however, to request expressions of opinion on such broad topics as observed shortages and oversupply, and outlook for future expansion of staff by field of teaching. Many other pertinent questions could have been raised, but only one more was selected. It is related to the growing effort to integrate broad areas of learning at the undergraduate level. Popularly, it is called the *general education* movement—the desire of curriculum builders to extend the well-roundedness of the education of all undergraduate students by the use of teachers who themselves have broad, integrated backgrounds of formal preparation. Such teachers, it is said, are perhaps best prepared and most strongly motivated to point up the interrelationships among the various general fields of study.

Impeding this movement, it seems, has been the lack of qualified teachers in the desired numbers. Since this developing situation has close relation to the over-all problem of supply and demand, a series of four questions was included in this study. The attitude of responding officials is indicated in Table 32.

About 7 of every 10 respondents answered Yes to the question, Do you feel that the general education movement in undergraduate colleges justifies an organized effort by graduate schools to provide doctoral programs of broader than the traditional nature? Such affirmative responses came from 3 of every 4 in Groups II, IV, and VI.

On the average, only about 1 in 3 (33.4 percent) of the responding institutions actively anticipates the addition of teachers to be specifically assigned to the development of this kind of program. In Group IV (teachers colleges), however, about 2 of every 3 (63.2 percent) expect to do so, while in Group II only 20.8 percent indicated that such a step is in their planning.

In recent years only about 1 in 4 (27.7 percent) of the responding institutions has been in the market for teachers to be assigned to this area. Of these, about 3 in 5 were successful in finding satisfactory candidates.

Conclusion

During the past two years graduate schools were the source of the supply of just over one-half of all new full-time teachers. Unfortunately, there is no established channel thru which the future adequacy of this reservoir can be measured. While the numbers of degrees granted at each level—bachelor's, master's, and doctor's—are known, these figures are not a concise measure of the numbers available for teaching positions, either by field or as a whole. Completion of the requirements for an advanced degree does not, in itself, indicate either that the degree recipient is (a) qualified to become a teacher, or (b) interested in teaching as an occupation.

Within the past decade the total number of bachelor's degrees conferred per year has ranged from 125,875 in 1944 up to 433,734 in 1950 and back down to 292,880 in 1954. The percent of men within this group has ranged from 43.1 in 1946 up to 76.0 in 1950 and then back to 64.0 in 1954.

Total master's degrees have ranged from 13,414 in 1944 up to 65,132 in 1951 and back down to 56,823 in 1954. The percent of men within this group has ranged from 42.5 in 1944 up to 71.0 in 1951 and then back to 67.1 in 1954.

Total doctor's degrees conferred have shown a different year-by-year pattern. From a low of 1966 in 1946, this number has advanced, without interruption, to a total of 8996 in 1954. The impact of recent fluctuations in the bachelor's and master's degree groups upon the future production of doctoral candidates is not yet known.

The distribution of master's and doctor's degree recipients in 1954 by fields of study bears little relation to the distribution of the total full-time college and university teaching staff, or to the distribution of new full-time teachers employed in 1953-54 and 1954-55, by field of teaching.

An estimate by employing officials of the oversupply during the past two years indicates a comfortable margin in some teaching fields, and none in others.

In a meaningful number of institutions the employing officials are not content with the traditional pattern of doctoral study as satisfactory preparation for college teaching, particularly in areas requiring the integration of subjectmatter fields.

V. A Look at the Future

College and university officials everywhere know that one of their most difficult tasks of the next decade will be to provide a teaching staff, adequate both in number and in quality, to meet the needs of students who will seek admission. Buildings and other physical facilities must, of course, be provided. The demand for special services will expand, and competent personnel must be available to assume a greater variety of administrative responsibilities. But teaching—the classroom program—will remain the heart of the educational enterprise.

As 1956 approaches, colleges and universities are in an unfavorable position from several points of view. First, the rate at which the call for their services will expand is yet to be determined, but a vast increase in enrolment within a decade is foreseen. Second, the preparation of the corps of full-time teachers now in service does not indicate a full readiness to serve adequately the present student body. Third, new full-time teachers employed during the past two years tend to pull down rather than to up-grade the average level of preparation of the whole staff. Fourth, many of the institutions have no established method of encouraging further preparation by staff members not yet adequately prepared. Fifth, the full-time staff now in service is, on the average, mature; the median age is 43.1 years; as many as 25 percent are beyond 52.5 years of age. Replacement, as well as additions, is therefore in prospect on a substantial scale. Sixth—and surely not least—is the unfavorable position of almost all higher education institutions in their ability to compete in the open market for the services of the qualified persons most desired for classroom teaching.

But a further handicap to effective planning is the lack of needed data—information about existing conditions from which future trends can be projected and justifiable changes made in present practice.

As an example, what assumptions underlie the present utilization of both plant and personnel? Is the prevailing student-teacher ratio to be maintained? If not, on what objective evidence may it be modified, either up or down?

On what basis does the present ratio of men to women rest? What is the nature of the fields of teaching which might use a higher percent of women?

What factors dictate the distribution of the total staff among the four professional ranks? And how are salary levels to be geared to these ranks?

To what extent can the use of part-time and temporary teachers be justified? Can the institutions maintaining graduate schools more closely relate the use of graduate students in their instructional programs to the preparation of future college teachers?

What constitutes a satisfactory program of preparation for college teaching? What responsibility rests with the undergraduate school? the graduate school at the master's degree level? the graduate school at the doctor's degree level?

What are the criteria for selective admission to preparation for college teaching? Is there agreement on these criteria between administrators of undergraduate colleges (the employers of many beginning teachers) and graduate school faculties?

Where does (or should) effective recruitment of prospective college teachers begin? By whom is it conducted? What facts should be in the hands of the person who undertakes to counsel a student who is or who might become interested in college teaching? What facts not now available should be assembled to support and improve the work of the counselor? Just what are the arguments in favor of college teaching? And what is the outlook for strengthening these arguments?

Almost one-half (48.5 percent) of the new teachers employed during the past two years came from sources other than graduate schools. More than 1 in 5 (22.2 percent) came from other educational work, which indicates that colleges are already drawing substantially from high-school staffs. Many college officials frankly express a preference for candidates with successful experience at the high-school level. But the high schools now face a period of rapid expansion and their primary source of supply of teachers has dwindled steadily

since 1950. Even now they face critical shortages in exactly the same teaching fields—the physical sciences and mathematics—as are beginning to plague the colleges.

And high schools everywhere will seek to continue the improvement of their standards. In four states the master's degree is required for the standard certificate, but even more significant is the steady advance in local standards —more and more districts are gearing their salary schedules to the professional improvement of the teacher. And thus the competition for the superior teacher—the one of proved ability—will continue to sharpen.

In a very real sense, the entire educational system is entering upon a new era. Many problems must be viewed in new dimensions. The need for research becomes more evident day by day. Many of the needed basic facts are not yet available.

It has been the ambition of this pioneer study to plumb only a few of the areas inviting study. A comprehensive investigation of supply of and demand for college and university teachers must be supported by systematic studies on every campus. And, unfortunately, many campuses are not equipped to compile the needed data.

Many college officials, after assembling the data requested in this brief study, expressed the intention to compile such reports annually. Such action will lay the groundwork for more meaningful investigations to follow.

To an extent seldom if ever equaled in our history, educators, state officials and the public at large are interested in the programs and organization of American higher education. The fact that the Council of State Governments was directed to undertake a study of higher education in the forty-eight states is but one indication of widespread interest in the subject as an important area of state responsibility. . . .

In general terms, the findings of the survey are these:

1. Public demand for the services provided by institutions of higher education will continue to mount; expenditures of institutions of higher education will continue to increase.
2. Public funds will continue to supply the major share of income received by institutions of higher education.
3. Close coordination of the programs and activities of state institutions of higher education is urgently needed in order that available resources and facilities may be utilized most effectively.

—Council of State Governments. *Higher Education in the Forty-Eight States.* Chicago: the Council, 1952. p. xiii, 2, 4, and 5.

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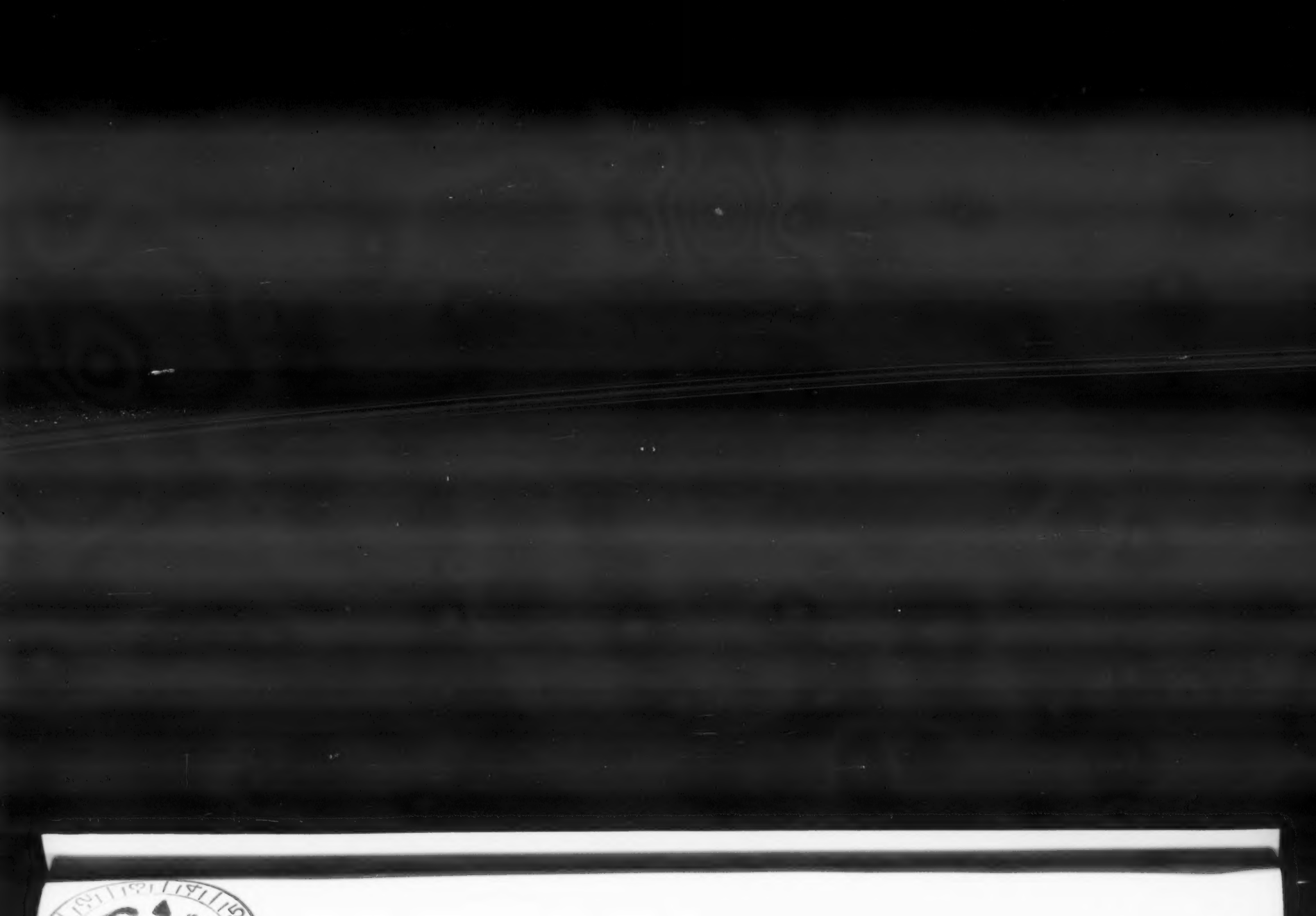
Robert L. Williams

THE serious problems which confront higher education today only foreshadow the even greater problems of the years ahead. Accelerating social change, increasing demands for world citizenship, pyramiding technological developments, greater emphasis upon ethical ideals—all create demand for qualities in faculty personnel now too rare on college and university campuses. . . .

If these quantitative and qualitative demands are to be met, immediate steps must be taken to give better preparation to larger numbers of prospective faculty members; to improve the present methods of recruitment, selection, and placement of faculty personnel; to develop and expand inservice education programs; and to enhance the working conditions of all who carry the responsibility for post-high school education. . . .

The task ahead of providing faculty personnel adequate for the kind of higher education our Nation requires places a tremendous responsibility upon our democracy. That responsibility is one which must be borne collectively by public and private agencies, by lay and professional citizens, by teachers and administrators. Only pooled efforts can meet the challenge—the challenge to improve democracy by improving higher education.—President's Commission on Higher Education. *Staffing Higher Education.* Higher Education for American Democracy, Vol. 4. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1947. p. 61, 63.